

EN010131 - GATE BURTON ENERGY PARK – DEADLINE 5 – MONDAY, 20TH NOVEMBER 2023

RESPONSE TO WRITTEN QUESTIONS EXQ3

Q3.1.1 – Scheme Boundary : To avoid duplication please refer to my comments on the Change Request Application submitted to the Planning Inspectorate by the 17 November 2023 deadline.

Q3.1.6 – ALL PARTIES - Joint Report on Interrelationships between NSIPs [REP4-050]

Comments on Appendix E (Review of Cumulative effects) to the Joint Report on Interrelationships between NSIPS including the approach and overall conclusions not in any particular order.

Every aspect of the interrelationship responses in the above document reinforces the absolute **cumulative** effect the four solar schemes will have which cannot be separated from one another by areas of varying mitigations. Joint Report Document Reference EN010131/8/26 (Gate Burton) 3 October 2023 Gate Burton, Cottam Solar, West Burton and Tillbridge Solar.

Predicted start of construction for Gate Burton Q1 2025, Cottam Solar Q4 2024 (earliest possible date) and West Burton Q4 2024 (earliest possible date) which indicates three of the four solar projects will be commencing operations at the same time – **cumulative**.

APPENDIX E

Climate Change:

Large-scale solar power plants will raise local temperatures, creating a solar heat island effect. Multiply this by 4 solar farms, and the effects become **cumulative**. In the countryside this increase would be similar to that created by an urban or industrial area thereby not helping climate change but worsening it by raising the temperatures. This altered microclimate will impact local flora and fauna. Notwithstanding there are 9 other NSIP solar projects coming forward or under examination for the Lincoln area that will, if approved, also affect local temperatures in those areas.

Has a study been undertaken by each of the four solar projects, which confirms the temperature increases 'locally' that will be experienced and the resultant effects on wildlife and their habitat on each site. Particularly based on climate change evidence being circulated today indicating summers will become much hotter and winters much wetter ?

If not, can the Planning Inspectorate ask for such study to be undertaken and the results made known.

Note: Furthermore, one of the 9 NSIPs, One Earth Solar Farm, recently launched will be only 3 miles away from the edge of the closest part of the West Burton scheme and should also be taken into account when looking at the overall effect of Gate Burton Solar, Cottam Solar, West Burton Solar and Tillbridge Solar. The perimeter of One Earth Solar borders the village of Hardwick, just a few miles from Saxilby village which has the perimeter of West Burton Solar in the adjoining fields to this village. The concentration of five schemes in such a small area is beyond understanding.

Cultural Heritage :

Despite the measures taken to determine the extent of areas that may contain buried artefacts and archaeological remains there is, based on the history of Lincoln and the surrounding areas from medieval /Roman eras, a considerable risk to unearthing and damaging remains across all four solar projects. **Individually and Cumulatively**.

Q3.6.3 - Article 7 Defence to proceedings in respect of statutory nuisance

Given my comments below on Noise and Vibration contained in Appendix E, I **object** to the removal of the ability for local residents etc to seek Statutory Nuisance redress as this is a right of entitlement given the dreadful conditions that residents will be facing. Excessive noise and disturbance from construction work is a valid ground for objection.

Noise and Vibration :

Whether it be one project or if all four projects proceed 'concurrently' (or almost) there will be noise and vibration for 12 hours per day, 6 / 7 days a week for several years and this will be an issue for the affected communities/residents and those visiting the area. I do not see any form of mitigation being able to counteract noise and vibration from drilling, transporting heavy equipment etc etc. Drilling is noise and there will be vibration and this is significant.

People respond differently to noise and have different levels of coping or not coping. Noise is defined as an unwanted sound. Unwanted noise is bad for human health. One only has to watch a holiday programme where there is drilling work progressing next door to the hotel you are booked into ! This affects people negatively and is distressing.

Transport and Access:

Traffic volumes, as a result of the construction activities of the proposed four developments will increase substantially with HGV, LGV, Cars etc. The cumulative traffic two flow flow volumes may well fall below the 30% impact threshold defined by Rule 1 of the IEMA but if this 30% only pertains to traffic on major routes, ie, A57, A156, A1500 and A15 to be used by the four solar projects then by definition 'up to 30%' will be on the B1241 road, single track roads and narrow lanes in and around the affected rural communities. *These 'A' roads are incredibly busy without the extra construction traffic. What percentage of increased traffic has been calculated, cumulatively, daily on the B1241 and narrow roads/lanes of these communities ? This information, broken down into the number of vehicles daily, should be provided in the documentation for Interested Parties to comment on.*

The A1500 is intersected by the B1241 in the village of Sturton by Stow. Such immense increase in traffic on these routes will present considerable **cumulative** effects in relation to pedestrian amenity, and fear and intimidation could arise to other road users along all these routes. An example - there are either narrow or none existent footpaths on the B1241 (from Saxilby to Gainsborough), a route to be used by West Burton /Cottam Solar Projects.

There is a genuine risk for accidents on all roads above when construction traffic, traffic controlling measures and road closures are in place due to the extensive period such measures will be in place coupled with the impatience of road users.

Water Environment

There is ample evidence to show that extensive flooding of both Cottam 1 and West Burton 2 schemes occurs. Although not affecting all four schemes in question it has a '**cumulative**' effect on the villages that suffer flooding as a consequence, as routes in and out of the villages become impassible.

Socio-Economics & LVIA :

Tillbridge Solar confirm there is potential for **cumulative** adverse effects on community severance, should scheme impacts occur at the same time during construction, with which I agree. They also confirm there is potential **cumulative** adverse impact on users of PRow's in the local area should impacts occur at the same time, with which I agree. Also potential significant **cumulative** effects on landscape character (presumably this includes visual impact ?) at a local level and potentially at a wider (National Character Area) level during construction and operation, based on current

information available. This contradicts the statements made by Gate Burton, Cottam and West Burton. There is ample and adequate information available to Tillbridge Solar in coming to these conclusions that would not require them to reconsider their statements on these aspects.

There is a genuine and significant risk to tourism and recreation both separately and **cumulatively** from these schemes locally in the affected villages where bed and breakfast, holiday lets, tea rooms/cafes/and other facilities are available notwithstanding the cultural heritage which makes these villages tourist destinations.

There will be limited beneficial effects for local level employment during construction or beyond as many workforce employees will be travelling from well outside of the area. These schemes would employ minimal staff once set up and would not directly support the economy of the area.

Housing and rental accommodation – the **cumulative** effects will be significant on the availability of housing stock (purchase or rental) for local people and the wider residents of the area if these are taken up by employees during the construction period and beyond of the schemes. There is a shortage of rental properties nationwide.

Other Environmental Topics

Air Quality: I disagree. The Air quality will be affected by the sheer scale of the works, ie drilling/piling the increased traffic movements, the disturbance of soil (earthworks removal), removal of hedgerows and trees, the wind speed and direction from either one or **cumulatively**, all four projects. Just a few days of harvesting (or ploughing after a very dry spell) increases dust and other particles in the air but this is very, very temporary during the harvesting season and is part of living in an agricultural environment, but not for years as will be the case with the solar schemes.

Harmful to Human Health.:

Human Health: There has never been solar project(s) in the UK to date on this scale where 7,000,000 million solar panels and associated hardware and paraphernalia have so densely surrounded 30 communities which would also be the largest combined solar project in Europe.

Where is the indisputable evidence presented in any of the documentation that all elements of human health will not be negatively impacted by any one scheme or **cumulatively from all four ?**

For example and very important, **cumulatively, where are the Risk Assessments, EMF measurements and research on the combined effects of Electromagnetic Fields (EMF) on humans, expressly as Solar farms on this scale in other parts of the world are in more remote areas away from human populations so these must be discounted in Risk Assessments ?**

To the four companies in mitigation: Please do not quote the 'Control of Electromagnetic Fields at Work Regulations 2016'. EMF from the **cumulative** effects of the four solar schemes must be assessed as a completely different entity.

Glint & Glare:

There will be an element of **cumulative** effects from three of the four solar schemes looking down from the B1398 (Lincoln Cliff/Escarpment) on the solar projects across the Area of Great Landscape Value, particularly when panels are tracking the sun.

Q3.3.1 : Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA)) *And, it is known that EMF can have adverse affects on flora and fauna.* Such effects have been observed in mammals such as bats and on birds, insects, amphibians, reptiles, microbes and many species of flora. Cyto-and geno-toxic effects have long been observed in laboratory research on animal models that can be extrapolated to wildlife, including aquatic environments that rely on the Earth's natural geomagnetic fields for critical life-sustaining information, even at vanishingly low intensities and can cause cellular and genetic damage.

1. EMF can disrupt the natural orientation behaviour of organisms.
2. Some species rely on electromagnetic cues for migration, and exposure to EMF can interfere with this process.
3. EMF could impact an organism's ability to locate food sources.
4. EMF exposure can affect reproductive processes.
5. Interference with mating behaviours has been observed in some cases.
6. EMF might disrupt nest-building or den-building activities.
7. EMF exposure could alter territorial behaviours.
8. Organisms may be less effective at defending themselves due to EMF effects.
9. Overall health and vitality can be impacted.
10. EMF exposure may influence lifespan.
11. EMF exposure is known to kill insects.

Many species exhibit unique sensitivities to EMF, surpassing human reactivity. These complex reactions can contribute to localised species extinctions.

Some solar technologies involve the use of chemicals (e.g., in cleaning panels), which can potentially affect nearby ecosystems. *How will the panels on all the solar schemes be cleaned and how often?*

The 30 affected communities are 'dark skies' with no light pollution. The solar panels can be disruptive, particularly at night as the panels emit a humming noise. They emit noise as they track back to their original positions and sound carries easily and over some distance in these affected areas. The **cumulative** effects of noise can affect people's ability to sleep along with any form of artificial lighting.

I have run out of time to complete this submission.

P A Mitchell
November 2023