# Ashby de la Launde, Bloxholm with Temple Bruer and Temple High Grange Parish Council

## Response to the Springwell Solar Farm EIA Scoping Report

Format of response:

1. Introduction highlighting why this proposal is not suitable in this area.
2. Comments on areas within the scoping document.
3. Areas requiring inclusion within the scoping document.
4. Conclusions.

## 1 - Introduction

We are shocked and hugely disappointed that such a proposal is in the process of being submitted; the project goes against all key planning and agricultural policies.

Our response will highlight why:

- The Springwell Solar Farm proposal is not suited to this area in Lincolnshire.
- The need to protect agricultural land from development is paramount.
- The Impact of the proposed Solar Farm development will be utterly devastating to the local area, residents and wildlife.

Inappropriate use of agricultural land

Food security is of paramount importance and protected via government policy.

- Research by Campaign for Rural England reveals that almost 14,500 hectares of the country's best agricultural land, which could grow at least 250,000 tons of vegetables a year based on typical yields, has been permanently lost to development since 2010. This research highlights the following consequences of the reduced use of land for agriculture as follows:
  - Two million fewer people can be fed 'five a day' from vegetables homegrown in England, as prime farmland is lost to development.
  - Food security concerns are increasing, with 60% of England's finest agricultural land at the highest risk of flooding from climate change.
  - Nearly 300,000 homes have been built on prime farmland, with an extra 1,400 hectares used for renewable energy projects; despite the availability of previously developed brownfield land waiting for regeneration.
  - The East of England has lost 3,232 ha of Best, Most Versatile (**BMV**) land since 2010 — the greatest absolute loss within a single region.

- The National Planning Policy Framework makes the protection of BMV land a priority; the need clearly evidenced by the increase in food poverty within the UK, and the food shortages experienced during the recent pandemic.

- Agricultural Land Classification (ALC) is a system used in England and Wales to grade the quality of land for agricultural use; aiding planning decisions affecting greenfield sites, in-order to protect good quality land from development. The system classifies land into five grades, with grade 1 being the best quality. Planning policies state that the

valuable grades 1, 2 & 3a should be protected from development not associated with agriculture of forestry.

- ❖ The negative impact of the Springwell proposal on English food security is massive. The whole development is on grade 2 and 3 land (primarily grade 2), highly productive agricultural land. If this land is developed, more food imports will be inevitable, with increased costs and uncertainty regarding food availability.
- ❖ The development would result in the loss of agricultural land for 40 years, with little hope of the land ever being returned to agricultural use. The location of the proposed solar farm strikes at the heart of Lincolnshire's stunning and highly productive agricultural land – this must be protected.

- Research into global warming and climate change has predicted that vast areas of UK land will be lost to the sea over the next 30 to 40 years; Lincolnshire being most at risk of all UK counties. (Reference Coastal Climate Central). In addition, the UK will see a significant increase in flooding. This data analysis provides further evidence of the importance of protecting prime agricultural land.

- In response to a petition titled 'Ban development on agricultural land to increase food self-sufficiency' DEFRA made the following statement:

  *"This Government has committed to broadly maintaining current levels of food production in the Food Strategy, to ensure our continued levels of food security.*

  *There will always be multiple pressures on land which require individual landowners, managers and Government to make decisions about trade-offs. DEFRA and DLUHC are working on striking the right balance. The National Planning Policy Framework aims to protect the best and most versatile agricultural land from significant, inappropriate or unsustainable development proposals; recognising the economic and other benefits of this land. It sets out a clear presumption away from the use of high-quality agricultural land for development where possible.*

  *DEFRA are committed to making the most of brownfield land and existing policy for protecting greenfield remains firmly in place.*

  *Recognising the importance of food security, in the Agriculture Act 2020 the Government made a commitment to produce an assessment of our food security at least once every three years. The first UK Food Security Report was published in December 2021. The report recognises the contribution made by British agriculture to our resilience, and the importance of strong domestic production to our food security. It considers the UK's food supply sources overall, noting that domestic production and diversity of supply are both important to our food security".*

- Soil Testing
  A recent leaflet produced by Springwell, informed local residents of imminent soil testing within the proposed site, over a 6-week period. It is imperative that an independent, government appointed organisation, confirms the findings.

<u>Wildlife</u>

Regardless of mitigation, there is no doubt the project will have a detrimental effect on wildlife and habitats. The site area is heavily populated with wildlife, including deer, muntjac, hares, rabbits, foxes, badgers and birds of prey.

The proposal is out of proportion and the development would cause significant harm and change the landscape

- The scale of harm in this location is such that, it would **not** be outweighed by the wider benefits of the renewable energy provision.

- The Secretary of State, Planning Inspectors and Planning Officers have identified that solar farm developments do invariably detract from the unspoiled character and appearance of the landscape.

- The solid structures of the proposed solar arrays would form a strong physical presence of industrial appearance which would change the character of the rural fields in which they are located and be significantly out of proportion.

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- The proposed development would be an incongruous industrial and alien intrusion that would be harmful to the landscape character of the area, and a discordant feature within the pastoral setting. It would clearly cause harm to the visual enjoyment of those that live in, or visit the area.

- The proposed development is out of keeping with rural character of the area.

  The solid structures of the arrays would form a strong physical presence of industrial appearance which would change the character of the rural fields in which they are located. The development would be visible in wider views, and would form an incongruous expanse of metal structures out of keeping with the intimate and rural character of the area, and would be disproportionate to the scale of other landscape features.

  The solar farm would significantly adversely impact the character and appearance of the landscape. The expansive tranquil landscape of open green fields with far reaching views would turn into a semi-industrial, utility-grade power complex, with fields of 3m high dark solar panels, shipping containers containing electrical equipment and security fencing. As such, we consider the proposed development contravenes Local Planning Policy, which requires that development proposals protect, enhance or restore the landscape character for its own intrinsic beauty, for future generations.

## 2 - Comments in relation to the Scoping Report

- Springwell have commissioned RSK Environment Ltd to prepare the Environment Impact Assessment but they are not an independent body. They are owned by a major US private Equity firm called Ares who are directly involved in the Green Energy Market. The whole report would appear to give the developers one sided viewpoint only, with little effort made to investigate negative impacts in any respect, which we find **completely unacceptable.**

| **Referencing individual areas within the scoping report:** |
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Description of the Proposed Development (2)

- Our research has highlighted that the land is highly unlikely to be returned to agricultural land, indeed, how can the land be 'returned to agricultural land' as stated in the original Springwell consultation booklet, when only the above ground infrastructure is proposed to be removed? More information needs to be provided detailing what exactly will remain subsurface and how will the developers a) return the land to be used again for agriculture, b) reinstate lost habitats and c) reintroduce lost species. 40 years cannot be viewed as temporary.

Approach to EIA (4)

- The mitigation claims that the development will avoid any wildlife site by15m, however this does not allow for the impact of removing open space from adjacent woodland.
- Regarding all mitigation in relation to bio diversity, how have all the distances been decided? We seek evidence relating to the effectiveness of the distances chosen.
- The scale and variety of wildlife in the area has not been given adequate inclusion within the scoping document; nor has the impact and threat the development would pose on wildlife. The scoping document is dismissive, when in reality the impact on local wildlife is huge, warranting significant consideration and inclusion.

Factors to be scoped out (5):
Due to this development being unprecedented due to size (over 6 times bigger than any previous project), there is no available comparable data. As such, ALL factors should be considered and not scoped out. Mitigating factors should be thoroughly investigated to relate to the sheer size of this development and current data and guidelines should be regarded as irrelevant.

REF 5-1 is an invalid link.

Glint and Glare (5.2)

- This should not be scoped out. There are no guidelines setting out a particular methodological approach to delivering a glint and glare assessment. The paragraph says the Secretary of State should assess the potential impact on glint and glare on nearby homes and motorists. Clearly this should be included, with particular emphasis on the panels facing houses, horses and oncoming traffic.
- There are operational military bases in close proximity to the development; RAF Cranwell, RAF Waddington, RAF Conningsby. In addition, the area also a number of private airfields, all of which should be consulted and considered.
- The Lincs & Notts Air Ambulance is based at RAF Waddington. As such they would have to fly over the site for any emergencies to the south east of their headquarters. It is imperative that they are consulted to discuss the impact of glint and glare while flying over the area, and possible landing difficulties.
    - There are a number of isolated properties within the site that rely on the Air Ambulance as their fastest emergency response.

Heat and radiation (5.3)

- According to actionrenewables.co.uk PV panels can reach temperatures of 65 degrees Celsius or more at the height of summer at which point solar cell efficiency and overall output will be significantly reduced. The laws of thermodynamics tell us that with increased heat comes decreased power output, and this applies to solar panels. Therefore, warmer temperatures will always mean less output for solar panels. The application site is situated within one of the hottest recorded parts of the UK. The Met Office recorded the hottest temperature in the UK during 2022 to be in Coningsby, Lincolnshire, only 10 miles from the proposed site.
- The scale of the solar farm is extensive and indeed unprecedented. The expansive volume of PV panel arrays with battery storage units and substations (also emitting heat from cooling systems) will inevitably create its own microclimate. The geographic extent of this must be determined. In combination with the free draining quality of the heathland soils, it has potential to cause failure of proposed mitigating landscaping measures due to heat stress and this could easily impact crops grown within adjacent land. Increased heat and change of environment might also prove harmful to local flora and fauna which could in turn be detrimental to pollinating insects and the life cycle of many species. In addition, the potential for localised temperature rises due to heat radiating from the installation, could also negatively affect local residents (health and amenity concerns). ‘ The impact of heat and radiation should therefore be ‘scoped in’ to the EIA. The potential impact also feeds into considerations of human health (section 5.6), the scope of which needs to be expanded accordingly and included within the EIA.
- While the black surfaces of solar panels absorb most of the sunlight that reaches them, only a fraction (around 15 percent) of that incoming energy gets converted to electricity. The rest is returned to the environment as heat. The panels are usually much darker than the ground they cover, so a vast expanse of solar cells will absorb a lot of additional energy and emit it as heat, affecting the climate.
- In a recent study, Pavao-Zuckerman, lead author Greg Barron-Gafford of the University of Arizona School of Geography and Development, and their research colleagues recently published their findings in the journal Nature Scientific Reports in a paper titled "The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperatures.” For this study, the team defined the heat island effect as the difference in ambient air temperature around the solar power plant compared to that of the surrounding landscape. Findings demonstrated that temperatures around a solar power plant were 5.4-7.2 °F (3-4 °C) warmer. The result demonstrates that there are potential heat costs to generating green power and should be investigated further.

Major Accidents and Disasters (5.4)

- It is crucial that attention be brought to the recent battery explosion in Liverpool (supported by multiple sources including solarpowerportal.co.uk, energy-storage, News reports and many major media platforms). The explosion at the BESS facility at Carnegie Road, Liverpool was a result of a failure within one of the battery racks in one container which led to a thermal runaway which in turn produced gases within the container culminating in a large explosion with parts of the container being blown across the compound to a distance of 23m. The main fire took 6 hours to bring under control but the continual recycling of heat from the Li-ion batteries remained an issue and defensive fire-fighting continued on-site for a total of 59 hours. The fire and explosion were deemed to have been caused by the failure of one or more battery units, but the root cause of the battery failure remains unknown. The report stated there was a significant risk to emergency responders. Battery safety is a serious consideration which should be thoroughly investigated before mitigating factors can be applied.
- Lincolnshire Fire and Rescue need to be consulted regarding this factor to ensure they have both the manpower and resources to tackle any such emergency and to ensure an action plan is created / plausible.

Utilities (5.5)

- There is a need to consult Connexin

Human Health (5.6)

- No mention of the well-being and mental health implications of any aspect of the project; noise, privacy, vibration, visual impact, traffic, air pollution and physical health.
- To be completely surrounded by an industrialised landscape can have nothing but a detrimental effect on residents' mental health.
- Whilst 'property value' is not usually classed as a material consideration, feedback from local residents has been significant in this respect. The implications of such should be considered within the scope of human health:
  - ❖ The development will create huge stress for residents wishing to sell their property with property prices and potential buyers both likely to be significantly decreased.
  - ❖ Worries associated with the consequences of decreased property value: less financial stability, less inheritance for children, owners less able to financially help children with first home/university etc.
- The report must take into account the possible risk to health, both during construction and long term, from magnetic fields and radiation (such as childhood cancer risk) to the huge increase in traffic during construction (such as residents with existing cardio pulmonary conditions).
- Reassurance and evidence are required to prove that the physical and mental health of local residents and visitors will not be impacted by the proposal.
  - A lack of data covering a 40-year period, plus the lack of a comparable sized solar farm, is extremely worrying in this regard.

Public rights of way (ProW)

- The development will significantly reduce recreational use (not increase it, as insinuated in the proposal). Even if reinstated, it is very unlikely that anyone will want to use ProW between fields full of panels and deer fencing.
- The Planning Inspectorate's report on the refusal of a solar Farm in Alfreton, Derbyshire included the buzzing created would distract from the enjoyment of walkers using the footpaths and possibly be heard at night by residents.
- Evidence is needed that people will continue to use footpaths, cycle and ride in an industrial landscape. Currently scoped out and justification and dismissed – inclusion needed.
- Feedback from local residents supports the above unanimously.

Impact on local businesses

- Using the term "within the site boundary" is an inaccurate way of deciding if businesses will be affected. The impact 'outside of the site boundary' has been ignored completely. Venues off all kinds for miles around, will undoubtably see a reduction in business.
- Tourism will be adversely affected. It is highly likely to be a reduction of occupancy in hospitality venues when construction is complete, which has not been mentioned.
- People will venture out for the day to enjoy the countryside, not however a solar farm.
- A development of the nature and scale will have a tangible socio-economic impact upon surrounding businesses and the propensity for people to visit/engage in countryside recreation. It is reasonable to anticipate that the visual impact will prove detrimental to the character of wider locality (land within the development's anticipated zone of visual influence and surroundings), which will in turn prove damaging to local businesses that benefit from tourism/countryside recreation. Significant research and justification are needed in this area.
- The suggested socio-economic benefits have not been properly investigated or justified; there are no shops to benefit. The area is agricultural and as such, the "temporary benefit to local economy" referred to in the document is inaccurate.
- The socio-economic consequences of the development should be examined more broadly.

Electric, Magnetic and Electromagnetic fields (5.10)

- There is no data outlining the "power size/ output" of the panels, battery storage and inverters.
- The guidelines referenced in the report (REF 5-11) also contain information about studies linking magnetic fields with cancer, specifically childhood cancer and leukemia. These findings need to be thoroughly reported on.
- The guidelines referenced are 25 years old and whilst may still be relevant regarding electrical power lines, there is no mention whatsoever of solar or pv panels. Due to the changes and advances in technology, these guidelines are not adequate to warrant scoping out E, M, EMF. More studies and investigations are needed to ensure the long-term safety of residents and produce a safe and more accurate report. This should especially apply to fields in close proximity to residential properties where there will be almost constant exposure.
- Are there any studies on the dangers of exposure for 40 years? What level of research and insurances have been taken to date to ensure health safety? What level of assurances can local residents expect?
- If this factor is not deemed worthy of inclusion within the scoping document, why does the inclusion of plans to have "ongoing consultation with RAF Digby to avoid any interference with their operations" remain, especially considering there is a buffer zone around the camp.

Air Pollution (6.1)

- 48 months of construction traffic whilst temporary could have an adverse effect on residents with cardio pulmonary conditions as well as a potential increased risk of childhood asthma and should be added to the report.
- “Given the nature of the Proposed Development, no site activities resulting in significant emissions to air are anticipated during operation” Surely this is incorrect, more research is needed regarding the number of vehicles needed to build the site.
- Accurate data needs to be provided in order to calculate the possible environmental impact of diesel emissions, dust, fumes etc.
- Quoting The British Heart Foundation: *‘When you breathe in poor quality air, the air pollutants can travel deep into your bloodstream through your lungs, and to your heart. This can damage blood vessels by making them narrower and harder, increasing the risk of developing heart and circulatory diseases”.*
- Reassurances urgently required.

Biodiversity (6.2)

- Data from the PEA must reflect monitoring location rather than being representative of populations on the whole site. There would likely have been a lot more recording if this project had been known about. If more widespread monitoring had commenced at the time of the PEA (April and May 2022) the results would be very different.
- The development has the potential to result in the direct loss of habitat needs of protected and notable species. A significant number of extra surveys are required including a year-round ecological survey covering mating, nesting/breeding, migration and habitat at the very least.
- Natural England recommends the avoidance of solar developments in or near to areas of high ecological value. The area proposed has numerous endangered species, for example; residents have reported multiple sightings of brown hares and many species of deer (including a white stag). In the same report it was stated that “the lack of evidence available relating to the ecological impact of solar farms is concerning”.
- Government legislation for an EIA (legislation.gov.uk) requires a ‘description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment’ There is no mention of this in the scoping report; this needs to be included.

**3 - Areas requiring inclusion within the scoping document**

In addition to the need for increased input raise in the table above, the following areas require inclusion within the scoping document:

Government legislation relating to scoping reports (legislation.gov.uk), requires the inclusion of the appraisal of alternative reasonable options, together with justification for the chosen option; taking into account the impact on the local environment. This requirement is lacking and needs to be included.

Financial Justification over alternatives

- There is no reference to cost v benefits analysis, nor justification in respect of the use of alternative Off Shore Wind Turbines (research highlights off shore wind turbines are a favoured alternative, due to increased productively, lower costs per unit and reduced impact).

  Ref. Regan Power 'The wind is a more efficient power source than solar. Wind turbines release less CO2 to the atmosphere. A wind turbine produces 4.64 grams of CO2/1kWh while the solar panel produces 70 grams of CO2/1kWh. Wind power consumes less energy and produces more energy compared to solar panels.
  By comparison with off-shore wind, solar farms are hugely inefficient. • A 140-acre solar park is said to be capable of supplying electricity to about 9,000 homes. One wind turbine in the North Sea has the capacity to power 16,000 homes. • In terms of efficiency rating i.e., the amount of power exported to the grid, solar's rating is between 11 and 15% whereas for off-shore wind the figure is 50%+. • On one day last year it has been reported that 78% of the UK's electricity came from off-shore wind.

- All costs need to be incorporated, including the costs associated with importing additional food products, shielding, lighting, maintenance, security etc.

Impact on local residents

- The impact on local residents has been dismissed, alarmingly so. The impact will be huge, with an array of differing implications, including disruption, traffic, visual impact, noise, vibration, light pollution and health. Significant consideration of all impacts affecting local residents is required.
- Security implications – CCTV, lighting, fencing etc. How will this affect local residents?
- The welfare of horses and livestock should be scoped into the document.
- Affecting the quality of life for our serving RAF personnel in Digby, is unacceptable for many reasons, including mental health issues and the ability to recruit.

Wildlife

The impact on local wildlife is currently seriously under represented and needs further inclusion.

Ecological Impact

- Natural England recommends the avoidance of solar developments in or near to areas of high ecological value. In the same report it was stated that "the lack of evidence available relating to the ecological impact of solar farms is concerning". The rural nature of the proposed area, inevitably creates a high ecological value to both humans and nonhumans alike. Inclusion required.

Negative visual impact for users of the footpath and bridleway across the site

- The proposed plans insinuate advantages will be generated by newly created footpaths; however, this is extremely misleading in our view.
- Currently there are extensive open views of green fields and agricultural farmland. The development would create significant adverse visual impact along any footpath or bridleway within the area, with arrays of 3 m high dark coloured solar panels which would tower above walkers blocking those views. Any footpath or bridleway would be separated from the site by a high security fence. The solar panels and fencing would destroy the wide, open views and create an unpleasant tunnel along the footpath and bridleway, degrading the amenity value.
- The solar farm development would turn a pleasant and rural area into an industrialised area, protected by CCTV cameras, lighting, high fencing and warning signs – a far cry from the current beauty of the area.
- Detailed analysis of how the proposal meets current planning policy relating to the protection of rights of way, is required.

Road networks

- The current road networks are inadequate and would not cope with the increased heavy traffic during development (already overburdened and unsuitable for large vehicles).
- Lincolnshire is the only county in the UK without a motorway.
- The B1191 (we reiterate the ‘B’ classification), is already a busy road providing the majority of vehicular access to RAF Digby from the A15.
- Lincolnshire County Council already struggle to find funds to repair the roads which become rife with potholes every year, consequently causing issues for motorists and cyclist with damaged tyres and road traffic accidents. Details of how these issues can be managed, if at all, need to be incorporated within the scoping report.
- Recognition of the road network limitations, need to be included within the scoping

In relation to heritage, the development would harm the settings of many historic and listed buildings within the area.

- There is an outstanding collection of older buildings within the vicinity of the site area, many of which are one of a kind, which need to be preserved and protected in their own right. Development of such buildings involve close scrutiny by Heritage England and local planning policies relating to the preservation of historic assets. Associated legislation is both numerous and extensive. The omission of detail in this area within the scoping report is unacceptable and inclusion essential.
- The lack of local knowledge in this respect is clearly evident and objectionable on many counts.
- The scoping report states that ‘whilst there may be glimpse from individual properties over 1km from the site; this does not give rise to an overbearing effect on residential amenity’. We wholeheartedly disagree with this statement. Further research and inclusion required.

Size of development – VAST
- An unacceptable and unprecedented scale – generating overriding harm.
- Inappropriate sizing; fundamentally changing the tranquil character of the area.
- The unknown consequences of a development of this size, will need major government input and review – it cannot be viewed in the same light as smaller proposals -timescales need to be incorporated for this work to be completed.

## 4 – Conclusion

We do not believe that the scoping document describes accurately, or fully represents the views of the affected local community.

The scoping document is incomplete, dismissive of key impacts and inaccurate in some areas; this is completely unacceptable.

There is a critical need to preserve agricultural land and UK food safety. The need to protect the site's productive agricultural land (a finite resource), is undoubtedly of prime importance. Lincolnshire has England's best food producing land – future food security has to be protected. 40 years is not temporary; the argument that the land can be returned to agriculture after decommissioning is misleading (the construction of a solar farm this size and the associated costs involved, make it very unlikely that the site will ever be returned to its' current agricultural use). There is no weight to any claims that the development is temporary and can be reversed.

The Loss of productive arable land is disastrous long term, escalating inflation and causing an increased reliance on imported food.

We believe there is a **policy conflict** (where government seeks to protect and enhance our domestic production to maintain food security, while also encouraging the growth of solar energy production). We recognise the need to balance both energy and food security, but solving one problem whilst affecting the other, is NOT the answer.

The list of negative impacts is extensive (impact on local residents and wildlife, the industrialisation of the countryside, loss of key agricultural land, the need for increased food imports, lack of adequate road networks, lost opportunities to enjoy recreation in the area etc. etc.) The adverse effects would demonstrably outweigh any benefits from this scheme; whilst alternative options are available. **The scoping document fails to address each and every impact adequately. Indeed, we feel the dismissive nature of key issues (suggesting they are unworthy of attention), denotes deception.**

Any solar farm developments should be limited to brownfield land and poorer quality unproductive land; located on already industrialised land, on roof tops or adjacent to motorways, not on productive agricultural land, or in an area which will cause significant visual impact to the residents and visitors.

Off Shore Wind Turbines offer a favourable solution to energy generation, a view supported by many senior government ministers.

All of the villages and hamlets affected, exude an abundance of quintessentially English charm; the cream stone buildings, a rare victorian walled garden, the open countryside

and the abundance of wildlife. The area is popular with walkers, cyclist, pedestrians, and horse riders. This unique beauty represents history with an abundance of older properties, built using local materials, never to be replaced.The need to safeguard this English heritage for future generations in undeniable and absolutely essential. Placing a solar farm next to such valuable heritage assets is not only out of character, but incomprehensible and utterly damaging to the historic landscape.

Feedback received to date from local residents, demonstrates the unanimous opposition to the proposal (further details are available if required).

All references included within this response, can be provided if required.

**As Parish Councillors, we feel we have a duty to do all we can to protect our community, agricultural land resource and historical assets.**