WBSP ExA's 1st questions

1.1.11 Government Net Zero Commitment Provide a summary of the effect on, and the implications for, the Government's Net Zero and climate change commitments should the Proposed Development in isolation, or in conjunction with others, not be implemented.

In the UK, the average yield from solar generation is around 10% of its rated capacity according to the Digest of UK Energy Statistics (DUKES).
The average output from the WBSP is therefore only 50MW and would generate annually around 438,000MWh or 0.43TWh.

The current UK annual electricity demand is 300,000,000MWh or 300TWh

Simple mathematics show that the WBSP offers only a **0.15%** contribution to our national needs and is arguably delivered at the wrong time of day and indeed year.
Nationally this is not a significant amount of electricity.

Over 2,000 acres of land will be lost to this disproportionate **0.15%** contribution, a figure that will only decrease due to predicted solar curtailment and the inevitable rise of the nation's energy needs.

This output covering this amount of land is the worst power to land ratio of any type of power station. This scale of development is unsustainable with between **280,000** acres and **650,000 acres.** potentially to be lost to land mounted solar and for such limited output.

280,000 acres. (56GW extra installed capacity = 112 x 500MW solar schemes @2,500 acres)

650,000 acres. (130GW listed on the NG TEC register @2,500acres per 500MW scheme)

The Current Situation

There are 11 proposed Solar PV NSIP's in Lincolnshire listed on the National Infrastructure Planning website at various stages. These are:

Gate Burton Energy Park

Cottam Solar Project

West Burton Solar Project

Tillbridge Solar Project

Beacon Fen Energy Park

One Earth Solar Project

Heckington Fen Solar Park

Mallard Pass Solar Project

Springwell Solar Farm

Temple Oaks Renewable Energy Park

Fosse Green Energy

These proposed schemes will cover approximately 26,000 acres of land.

There are 35 Solar NSIP's for Lincolnshire (including those mentioned) listed on the National Grid Transmission Entry Capacity (TEC) Register. The TEC Register represents the companies which have secured contracts to export energy onto the National Electricity Energy Transmission System (NETS).

The area of land that these 35 Solar NSIP's in Lincolnshire represents is over 70,000 acres.

The maximum installed capacity for these 35 schemes is some 15,000MW.

As mentioned earlier only 10% of this installed capacity will be actual generating capacity. This equates to a more modest 1,500 MW of generating capacity produced from this massive amount of land, and this is just Lincolnshire!

In comparison, Hinkley Point C Nuclear Power Station will have a capacity of 3,200MW. This amounts to **7%** of the UK's electricity need and will cover an area of approximately 400 acres. Likewise, Sizewell C will produce 3,200 MW, another **7%** and cover an area of just 170 acres.

The energy produced by these stations will be reliable, consistent and in quantities needed to move forward. In complete contrast, solar energy is land hungry, intermittent, and unreliable producing very little electricity in winter when we need it most.

The National Picture: Solar Photovoltaic Schemes

There are 393 Solar PV Schemes listed on the National Grid Transmission Entry Capacity (TEC) Register. Some 306 are Nationally Significant Infrastructure Project size. In total, the land covered by these schemes would be around **650,000 acres** with an installed capacity of around **130GW**.
This is an excessive amount of solar power that would swallow up impossible amounts of land. This solar free for all is not sustainable. We need reliable electricity that is efficient in generation and in land use. Solar on farmland is not that.

For context, Greater London covers **380,000 acres!**

Of course, I realise that gaining a TEC license offers no guarantees, but it does show the unprecedented dash for these schemes and the potential vast choice available with some undoubtably better than others?

Solar on farmland is simply an easy option, but it would have an extremely limited contribution on the full decarbonisation picture. With the loss of so much land required for other Net Zero and Domestic initiatives.

As China is the obvious supplier of solar apparatus to this scheme, and with recent reports that take into account China's vast coal burning power industry, means that the manufacturing emissions would be as high as 250g CO2/kwh. This is 5x more than previously presented and over 60% of the CO2 from gas fired generation.

Electricity generation in the UK is responsible for less than 20% of national CO2 emissions, therefore carbon reductions by the CSP would be imperceptible on our overall aims and due to the small amounts of electricity produced by solar and therefore its long carbon payback period, means that it does not align with any climate emergency timeframes.
Solar on farmland, from an energy and Net Zero perspective has largely gone without scrutiny, but it is clearly flawed.
The magnitude of land being given over to solar for such little in return is not in the nation's best strategic interests.
The premise of renewable energy is to save the environment, not to destroy it.

Rise of Renewable/Net Zero Backlash

The Prime Minister recognised in a recent speech that the electorate are concerned about the impact of pursuing a fast-paced agenda towards Net Zero.

I agree and have learnt over many months that these proposed solar energy schemes will be highly destructive and would provide very little energy for the future.

Schemes forced on communities with such adverse impacts for little gain, can only serve to undermine support for Net Zero. The public need to be encouraged and not have this kind of development imposed upon them.

As stated before, the modest and problematic generation on such significant areas of land that will be required for other Net Zero projects means that the WBSP would have negative implications on the wider Net Zero picture, with other more effective and less land hungry generation options required for our current and future goals, after all we will need vast amounts of electricity to decarbonize all sectors not tiny percentages of what we once had.

There will clearly be good and bad solar proposals coming through the system.
I believe this one and its sister to be bad.

The overall implications for this scale of ground mounted solar and its associated land use inefficiencies would be negative on Net Zero ambitions.

1.1.12 Battery Energy Storage Systems It has been suggested in the Written Representation (WR) made by 7000 Acres [REP1A-021] that there is currently insufficient evidence for the ExA to conclude that an energy trading Battery Energy Storage System (BESS) would be Associated Development, or an aim in itself. It is also suggested that the Applicant has not provided evidence why a BESS of this size is required, why its capacity should be uncapped, and why it needs to trade energy with the National Grid. The Applicant is asked to please respond to the points raised, where relevant providing evidence to support its position.

With only around 2GWh of BESS in the UK and only about 50GWh worldwide, means that batteries will not and cannot realistically be the answer to solar's many shortcomings any time soon.

The UK alone would currently need up to 50GWh of batteries just to satisfy one hour of peak demand and around 1000GWh to provide 24hrs of backup. Batteries are not the Panacea.
They are, however, a totally separate entity to the PV sites and a significant cash cow for the operator, who will be buying low and selling high. With the majority of the charging power coming from Grid and not PVs this is not associated development
BESS should be mounted safely on the brownfield site next to the 400kv substation.

1.1.19 Comparable Scale Infrastructure Noting the proposed heights of PV panels above ground level, and sub-station heights, please can the Applicant provide, if available, reference to a comparable solar farm with regard to height, massing of associated infrastructure, and manoeuvrability of panels?

The West Burton 4 site, that was eventually removed from the WBSP due to ALC figure anomalies? Had the panel height reduced to 3.5m after consultation in an effort to compromise with the local campaign group, the area of PVs was also reduced by a third.
In the end the extremely effective campaign group won, and the site was dropped.

Heckington Fen solar farm initially proposed 4.5m panels. The Developer listened to local concerns and the height was reduced.
4.5m high panels must not be allowed into the countryside. Sunnica solar farm that is sitting with the SoS at the moment is limiting panel height to 2.5m.
If these energy follies go ahead then low level infrastructure must be used, as recommended by BRE and Solar Energy UK.

1.2.17 Temporary Loss of Agricultural Land The application will result in temporary loss of agricultural land over the intended timespan for the Proposed Development. Chapter 19 Soils and Agriculture Paragraph 19.9.28 of [APP-057] confirms that "There is no obligation for land to return to arable production…". Please can the Applicant set out how it is considered that farming skills and knowledge will be retained for future reversion to agricultural practices? The ExA also seeks views on this from other Interested Parties.

Claiming that after 60 years the land could return to agriculture is unlikely.

I doubt after six decades there will be a renewed appetite for agriculture in this area. This will be classed as previously developed land with a Grid connection. I think we all know this land will be used for industry in perpetuity, in essence a very large brownfield site.

1.9.7 Large-scale Ground-mounted Solar Farms 7000 Acres states in RR [RR-001] that "while there is a clear case for solar playing a role in decarbonisation, there is no clear case for extensive displacement of farmland through the installation of large-scale ground-mounted solar farms". With reference to paragraph 3.3.58 of dNPS EN-1, which states that "The need for all these types of infrastructure is established by this NPS and is urgent", please can 7000 Acres (or other IPs) explain the above statement.

Although I am no planning expert, I do not believe the word "Urgent" overrides sound planning policy and principles. NPS should not be cherry picked to suit harmful business cases that do not deliver!

Large scale ground mounted solar is detrimental to so many other land use projects whose contributions are truly "urgent" and truly beneficial.
When looking at the bigger picture I cannot see any benefit to the wholesale loss of land for a limited electrical contribution.
I believe high yielding wind power deserves urgency along with nuclear power of all types.
With the negatives of utility ground mounted solar becoming more and more evident, now is time to change this foolhardy path and offramp to rooftops for the majority of solar schemes, as indicated by the Government and save our finite land for better uses.
Why are the Developers being allowed to disregard brownfield site use, with not one being used over the cumulative 10,000 acres. All we seem to hear is "not suitable or not available" I suspect the real reason is "not convenient"?

Today, the 2nd of January 2024 at midday the current installed 14GW of solar is generating just 0.47GW giving a 1.2% Grid contribution. That is a peak solar generation yield of just 3.5%.
The 24-hour solar average would be practically zero!
Illustrating that renewables are undeniably not of equal value and therefore urgency.

The UK is a small windy island not a large sunny one, solar cannot be a primary generator here. Yet it is being promoted as such.

- **The electrical output and corresponding decarbonisation contribution is far too low.**
- **The loss of so much farmland for 60 years is too high.**
- **The effects on visual impact and landscape would be significant.**
- **Mental wellbeing risk is significant.**
- **Local opposition is extremely high.**
- **Rooftop and brownfield sites must be enforced as priority.**

1.9.11 Energy generation Chapter 7 [APP-045] paragraph 7.8.61 sets out a total energy generation figure of around 21,956,988 MWh over the estimated 40-year assessed lifetime. The Applicant is asked to update this figure in the light of the updated 60-year decommissioning date.

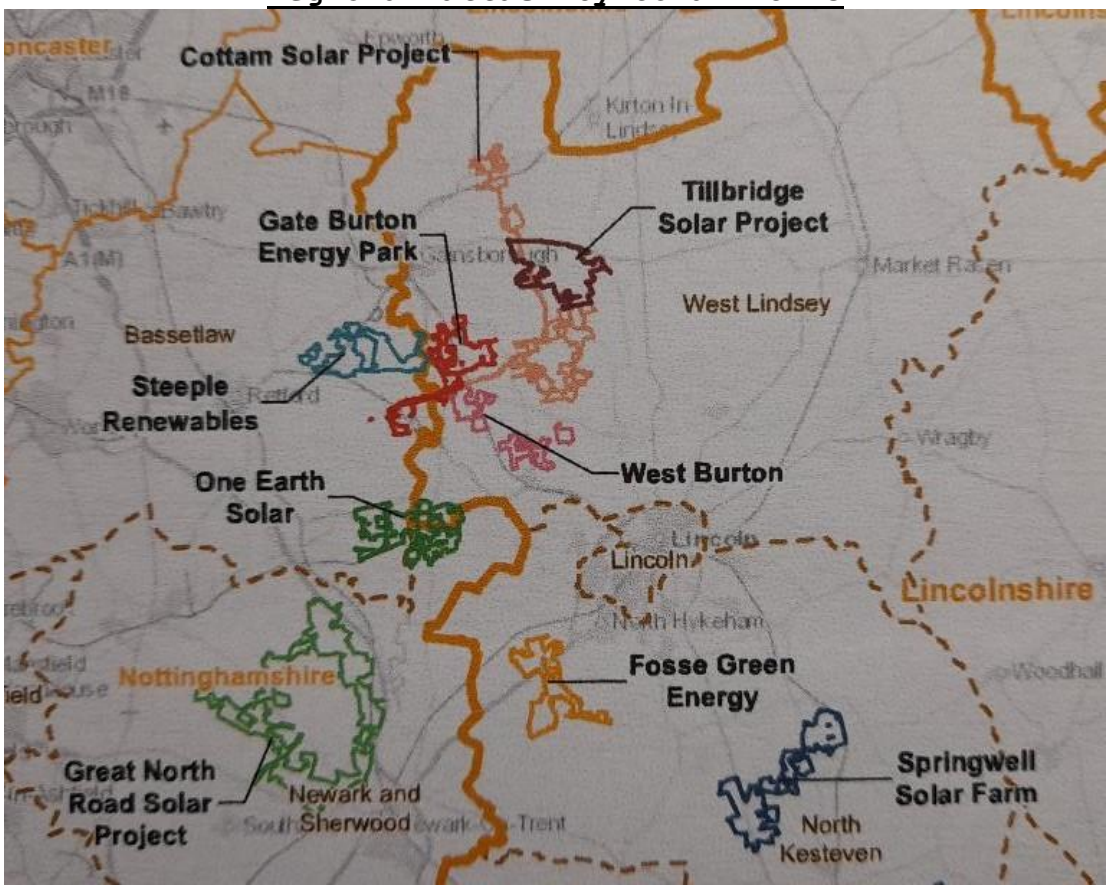
If the WBSP has an export limit of 480MW then its yearly maximum output would be 480 x 11% =53 MW x8760 = 464,280 x 40 years = **18,571,200 MWh** not **21,956,988 MWh.**

With these inflated but still poor generating figures, I presume that the Applicant has decided to overplant the scheme and use this overplanting as extra generation up to the export limit. Overplanting is merely scaling up an already crassly inefficient development trying to improve on its weak generating statistics at the expense of further land loss and greater visual impact. The use of massive tilting panels to desperately increase the yield by another fraction is also a further blight on the landscape.

The controversial Sunnica site in Cambridgeshire is using low level 2.5m panels and even with this the Secretary of State is showing increasing concern over visual impact, delaying her decision twice. The Sunnica site is nothing compared to our combined and highly visible 10,000 acres in West Lindsey and beyond. (see map below)

Low yielding solar will be well and truly obsolete by 2090 and a 60 year lifetime is unachievable without entire equipment replacement. Generation should be limited to the original installations nominal life expectancy.

Regional attack by Solar NSIPs



1.13.2 Sheep Grazing for Agricultural Use Under Solar Panels Paragraph 18.8.11 of Chapter 18 Socio Economic and Tourism and Recreation [APP-056] of the ES refers to “diversified agricultural practices (such as sheep rearing and grazing) that can be continued alongside the operation of the Scheme will help to mitigate the impacts on agriculture sector employment and the sector economy.”

There should be no weight given to any form of continued agriculture on the WBSP.
The token gesture of any sheep grazing, as seen at many other solar farm applications is just planning propaganda and a photo shoot opportunity.
It has been documented that sheep grazing on solar farms can bring many negative concerns to the operator and farmer, and many operators have indeed halted this practice after planning approval has been granted.
Cable and panel damage, rounding up difficulties and other husbandry issues being the main reasons for the cessation of this limited secondary function.

The heavy and often wet land in the area is not conducive to sheep welfare. Hence this being an arable landscape, famed for growing cereals. Lincolnshire is after all "the Breadbasket of the UK."
Another small issue is the obvious lack of sheep in this area. With the site likely to be sown with biodiversity mixes, not of forage yielding quality that would offer only poor grazing. This Agri-proposal is purely an empty option of no weight. The Applicant of the Gate Burton Energy Park has already acknowledged this fact.
I am sure that the UK does not require hundreds of thousands of acres of additional sheep grazing on solar complexes.

Consideration should also be given to the fact that the landowners new and multiplied income stream moves him away from any need or drive to invest in any marginal farming enterprises.

I ask. Why the Applicant with such high climate morals would be promoting the expansion of livestock production that would exacerbate climate change?
“One sheep can produce about 30 litres of methane each day.
According to the United Nations Economic Commission for Europe, methane has 28 to 34 times the impact of carbon dioxide in a 100-year period and over the first 20 years after it reaches the atmosphere, it's 84 to 86 times more potent.”