

#### Q1.1.2 POLICY IMPLICATION FOR NET ZERO.

The Gate Burton Energy Park (GBEP) will have a peak capacity of around 500MW.

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 is therefore 50MW and would generate around 438,000MWh per annum.

The annual UK electricity demand is 300,000,000MWh.(300TWh)

Simple mathematics show that GBEP offers less than a 0.15% contribution to our national needs and arguably delivered at the wrong time of day and indeed year.

The loss of 2,500 acres of productive farmland and the harm caused by the industrialisation of our countryside for less than a 0.15% contribution to our electricity needs means that this is more likely to hamper our Net Zero ambitions than assist.

To help put this into context, Sizewell C will generate 3,200MW on just 170 acres of land providing a 7% power contribution.

That is nearly 50x more electricity generated than GBEP on a fraction of the land.

Hypothetically, if we were to generate the nations needs(300TWh) using solar on farmland, then around 1.7 million acres would be lost.

The same calculation applied for nuclear would see less than 3 thousand acres lost!

Solar Developers only ever seem to advertise output by how many homes would be provided for, this figure being purely the solar farm's annual output divided by the average home electricity consumption.

This is an oversimplification and does not take into account daily and seasonal solar shortfalls, when other generation is required to back this up.

Because of the relatively small amounts of electricity produced by solar and thus the long carbon payback period together with apparatus being replaced on a 15 year cycle, means that the carbon trapped from continued agriculture and therefore CO2 emissions would not rise due to extra food imports, far outweighs this schemes compounded carbon footprint.

Solar on farmland, from an energy security and Net Zero perspective, is clearly flawed and this magnitude of land use change could only be deemed as unlawful and not in the nation's best interests.

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 generation, 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.

With GBEP's rejection, there would be no consequence to Net Zero targets.