Carbon Footprint.

There seems to be a basic assumption that all renewable energy plants are “green” but all have a carbon footprint which is often relatively large. As more and more renewable energy is pumped into the grid, the design and operation of renewable plants needs to be increasingly efficient if they are to continue to reduce the carbon footprint of the grid

The figures provided by Sunnica to demonstrate the carbon footprint have already changed twice since the first set of figures was published. Since being challenged by Cranfield, Sunnica have found that replacement batteries (manufacture of which is very carbon intensive) were not included in the original calculations and have revised a number of other figures. They have so far provided no justification for these revised figures.

The dislocated form of the plant increases the CO2 losses – there are many more miles of fencing and cabling along with 3 separate substations and battery compounds which would not be required were the site to be more compact as is more usually the case.

It is unclear as to whether or not the losses incurred in sending electricity backwards and forwards along 15 miles of cable to the batteries are taken into account, but the batteries themselves lose in the region of 15% of the energy.

The comparisons Sunnica make with the grid are all based on figures from gas powered turbine generation and do not reflect the mix of energy going into the grid, so rather than take a representative figure they have used the worst figures.

The lack of information supplied by the applicant must cast doubt over whether or not this scheme, in particular, will ever repay the carbon footprint it creates.