



## Requirements for a Solar Farm Site

Haymaker Energy is seeking suitable sites in Southern England and Wales for 5MW+ Solar Farms. This paper sets out the requirements for a suitable site.

The picture below shows what a typical 5MW solar farm will look like. It consists of 20,000 Solar PV panels set on frames which face south. The frames are set high enough off the ground that sheep can graze underneath.



# Ideal Site requirements

- 1) 5 acres per MW
- 2) Flat ground or gently sloping to south
- 3) No rights of way across the land
- 4) Site not obviously visible from neighbouring houses
- 5) No sensitive archaeology
- 6) No shallow bed rock (the frames have posts which are pile driven 1.4m typically)
- 7) Site outside special protection areas such as National parks, AONB's etc
- 8) Accessible by road or track to site entrance
- 9) Site not liable to flooding
- 10) Single ownership
- 11) No large trees, mobile telephone masts or other structure which casts a shadow on the land
- 12) No adverse planning history
- 13) Land not Grade 1,2 or 3a
- 14) Particularly suitable sites include – redundant airfields and low quality grazing land.
- 15) MOST IMPORTANTLY – the site needs to have 11KV or 33KV over head power lines crossing it or close by and accessible via the highway verge or an obtainable wayleave. Larger power lines are too expensive to connect to and smaller ones will not take the load. I follow overleaf with a picture of 11KV and 33KV line. The 5 glass or ceramic bushes distinguish this size of power line.
- 16) An 11KV overhead line will only be suitable for a 5MW connection if it is close to a Primary 33KV/11KV substation.
- 17) A 33KV overhead line can potentially take 15MW
- 18) The best site of all would be adjacent to a Primary 33KV/11KV substation

11kv overhead line



33kv overhead line



## 33kv/11kv substation



Consideration will be given to outright purchase or a 25 year lease for the right site on which planning consent can be obtained.

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