Evidence 3: Conclusions from a report into power capabilities and requirements

1 Power capabilities

We have identified that the *Mark 85* solar panels should be used to power the data centre. An individual panel is capable of generating **500 Watts** of power per hour of sunlight.

Current designs for the data centre building will allow for up to **250** solar panels to be installed. Each panel costs **£2,500**.

It had been decided at least **5%** of the average monthly energy requirements should come from solar power. Note that this may drop below 5% in any given month, provided the overall annual average remains at or above 5%. However, to ensure at least some consistency in supply the chosen site should have a much sunlight as possible, and **never fewer than 12 hours in a single month**.

2 Power requirements

The servers identified for the data centre are highly energy efficient, with each requiring an average of **300 Watts** of power per hour. This works out at approximately **219,000 Watts** per server, per month.

Given present requirements, at least **1,000** servers will be required, however the design of the building can support more than this if power capacity allows. The more servers that can be powered now will increase the level of future-proofing.