

## Frequently Asked Questions

The Estate has consulted with local residents and professionals while developing the proposal and welcomes comments and questions about their plans.

In developing the design, several frequently asked questions have been raised by interested parties and the Estate wishes to provide precise and accurate information;

- **What are Photovoltaic Collectors?**

Photovoltaic Collectors turn the sun's radiation directly into electrical power using arrays of silicon cells fixed within sheets of glass.

- **How much power will the proposal produce?**  
5MW at peak performance. In a typical year enough energy will be generated for the needs of around 1,000 homes.

- **Do the collectors need direct sunlight?**

No, solar panels convert sunlight and daylight directly into electricity, and work even in overcast conditions.

- **I have heard that more energy is required to manufacture the cells than they generate, is this true?**

No, a relatively high amount of energy is required to process the silicon that makes the solar cells. However, the energy used in manufacture is recovered within 3 to 4 years of operation. After this period there is at least 20 years of clean, zero emission electricity produced.

- **How long will the panels last?**

The panel performance is expected to degrade over their lifetime. However, the manufacturer's guarantee the performance of the panels will be at least 80% of their original output after 25 years. Existing installations have been shown to work for over 30 years.

- **Will it Smell?**

No, the photovoltaic panels give off no emissions or odour.



- **Will it make any Noise?**

No, the photovoltaic panels are entirely silent in operation. The transformer is located in an acoustic enclosure and far enough away from the public footpaths to be inaudible over background noise.

- **Is it better to use the land for agricultural purposes?**

The land will continue to be used for agricultural purposes with sheep grazing between and under the panels.

- **Will the Panels Harm Wildlife.**

No, photovoltaic panels have been erected on many sites across Europe with no reported adverse effects on Wildlife. The move from arable crops to low intensity grazing will promote biodiversity in the area and have a positive impact on the local wildlife. The Estate has commissioned studies of the existing wildlife on site and intends to introduce planting to significantly improve the ecological value of the site.

- **Will I be able to see the collectors from my Home?**

No, Newhouse Field was selected for its location away from any existing housing. The field is already well screened by existing hedges and trees and further landscaping has been specifically designed to make the installation almost invisible to public view.

- **Will I be able to see the collectors from the Footpaths that pass by the site?**

Glimpsed views through the bushes during the winter months may be possible from the Bridle Path leading to Badminton Common and Stanswood Common. However, once the additional planting has matured along this boundary, it will be almost impossible to see the panels.

- **How are the Photovoltaic Panels connected to the National Grid.**

An Underground cable connects the new transformer in Newhouse Field to the existing Langley Substation.

- **What maintenance is required?**

The panels require very little maintenance with cleaning twice a year and occasional replacement and maintenance of inverters.