

Sustainability & Energy Assessment – Birch Trees Farm

Introduction

This Sustainability and Energy Statement has been prepared in support of the planning application for the construction of a 3-bedroom dwelling at Birch Trees Farm. The statement outlines the measures taken to ensure the development meets sustainable design principles, reduces its environmental impact, and incorporates energy-efficient solutions.

Heating

The development will use an energy-efficient heating system such as an air source heat pump (ASHP), this system works by extracting heat from the outside air, even in cold weather, to heat the house efficiently.

The house will also feature underfloor heating to ensure even heat distribution and improve comfort while reducing energy use.

Renewable Energy

The property will include renewable energy systems, specifically:

- Solar Photovoltaic (PV) Panels on the roof to generate electricity from sunlight. These panels will contribute to the house's electricity needs, reducing reliance on the grid and lowering carbon emissions.
- Battery storage. Stores excess solar energy which can be used later or surplus can be exported back to the grid.

Water Efficiency

To minimize water consumption, the following measures will be implemented:

- Low-flow faucets and showerheads to reduce water usage without compromising performance.
- Dual-flush toilets to allow for reduced water use per flush.

Conclusion

This Sustainability and Energy Statement outlines the sustainable design and energy-efficient measures incorporated into the proposed 3-bedroom dwelling. The project will achieve a significant reduction in energy consumption, carbon emissions, and environmental impact. By implementing renewable energy systems, efficient building materials, and water-saving technologies, the development will contribute positively to the local environment while ensuring a comfortable, modern living space for its future occupants.