Energy and Sustainability Statement - Proposed house on land adjacent to Thorpe Street, Glossop.

1. Introduction

This Energy and Sustainability Statement supports the planning application for a new proposed family dwelling house on Thorpe Street, Glossop. The proposal has been designed to meet national and local sustainability objectives, reduce operational carbon emissions, and contribute to Greater Manchester's ambition to become a carbon-neutral city region by 2038.

2. Energy Efficiency Measures

The proposed dwelling adopts a fabric-first approach to minimise energy demand:

- High-performance insulation in walls, roof, and floors.

- Double-glazed windows with low-emissivity coatings.

- Airtight construction to reduce heat loss.

- Mechanical Ventilation with Heat Recovery (MVHR) system.

- Low energy LED lighting throughout the dwelling to reduce electricity consumption and improve efficiency.

- Solar powered external lighting.

3. Heating and Hot Water

The dwelling will be heated using an A-rated boiler with smart heating controls to optimise energy use.

4. Overheating and Ventilation

The dwelling will comply with Part O and Part F of the Building Regulations:

- Passive design strategies such as shading, orientation, and window sizing.

- MVHR system ensures adequate ventilation and energy recovery.

5. Water Efficiency and Sustainable Drainage

- Low-flow fixtures and fittings will be installed to achieve water use of ≤105 litres/person/day.

- Water butts will be installed to harvest rainwater from roof surfaces for use in garden irrigation and external cleaning.

- Permeable paving and SuDS site measures will manage surface water runoff and reduce flood risk.

6. Materials and Waste

The applicant proposes to:

- Use locally sourced, low-embodied carbon materials in the construction.

- FSC-certified timber for structural and finish elements.

- Construction waste will be minimised and recycled in accordance with site waste management plans.

- Clean materials excavated from the land to facilitate the proposed development will be re-used for re-grading of the land and formation of associated garden areas.

7. Sustainable Transport and Connectivity

- Provision of EV charging infrastructure in line with Part S of the Building Regulations.
- Secure cycle storage will be provided.

- The site is well-connected to public transport and local amenities / services.

8. Energy Efficient Appliances

The dwelling will be equipped with energy-efficient domestic appliances rated A or better under the EU Energy Label scheme. This includes:

- Low energy refrigerators and freezers.

- Efficient washing machines and dishwashers.

- Induction cooktops and low energy ovens.

These appliances will help reduce electricity consumption and support the overall sustainability goals of the development.

9. Conclusion

The proposed house on Thorpe Street, Glossop has been designed to meet and exceed current energy and sustainability standards. It aligns with:

- Future Homes Standard (2025)

- Building Regulations Parts L, O, F, and S

The development will deliver a low-carbon, energy-efficient, and future-proofed house on Thorpe Street.