

**PROJECT NAME****EXCELLENCE, LAND AT WIGGS FARM, STATION ROAD, COALVILLE****SUSTAINABILITY STATEMENT**

Prepared by:

D W Pointer & Partners Ltd  
Building Services Consulting Engineers  
4 Sugar Brook Court  
Aston Road  
Bromsgrove  
B60 3EX

Tel: 01527 578257

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## Energy Statement Introduction

The BREEAM Energy category encourages the specification and design of energy efficient buildings, systems and equipment that support the sustainable use and management of energy during their operation. Credits are available for:

- Reducing energy consumption and carbon emissions;
- Provision of energy monitoring systems;
- Specification of low energy external lighting;
- Low carbon design;
- Provision of energy efficiency transportation systems.

The following sections set out Barberry Bardon Limited energy and carbon strategy which aims to reduce the operational energy use and carbon emissions of development in accordance with the Energy Hierarchy.

## Energy and Carbon Strategy

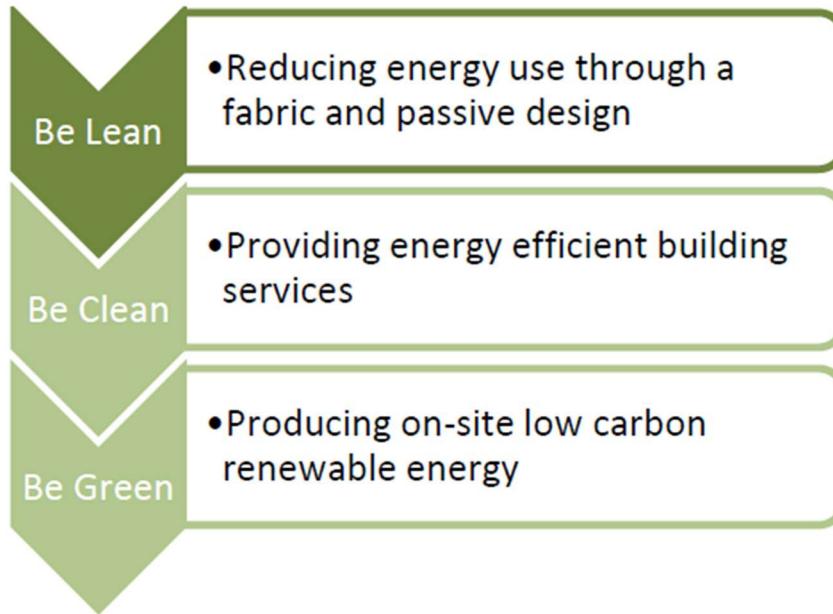
Barberry Bardon Ltd has a proactive approach to energy and carbon emissions and aims to reduce emissions through both construction and operation incorporating low carbon design into the development.

Below the measures incorporated at this stage of the design process with regards to construction and operational are set out, as well as measures to be considered during the detailed design of the new facility.

## Operational Energy and Carbon

**CS POLICY 2, Core Strategy Plan** requires development to minimise resource demand, maximising the use of energy efficient systems and energy from decentralised renewable sources.

The Future Buildings Standard sets out potential requirements for new –non-residential development to reduce carbon emissions. The Government’s preferred approach is for buildings to achieve an aggregated 27% reduction in carbon emissions beyond the current Regulations. For a distribution warehouse this equates to a 21% improvement beyond the current Regulations.



Following the Energy Hierarchy aims to deliver sustainable new buildings which go beyond the requirements of national and local policy.

Below the energy strategy for the proposed development has been summarised following the energy hierarchy. To support the development design stage energy modelling has been carried out by D W Pointer and Partners Ltd to estimate the energy consumption and carbon emissions of the proposed development.

### **Be Lean – Reducing Energy Use**

Reducing the primary energy demand of a building through the use of an efficient fabric and services is widely regarded as best practice and is therefore the first and most important step to reducing carbon emissions.

The new buildings have been designed in accordance with a fabric first approach to create high efficiency buildings which reduce primary energy demand and therefore carbon emissions.

In new industrial buildings and distribution warehouses the majority of the building is unlikely to require heating or cooling, with the main heating and cooling requirement limited to the small proportion of office space provided. As a result the predominant regulated energy consumption in these buildings will be electrical energy for lighting.

In the first instance to create an efficient fabric and minimise energy use and lighting requirements the following measures are used:

Provision of roof lights to cover 15% of the unit roof spaces to prioritise natural daylighting, minimising artificial lighting and energy requirements;

Improved air tightness values which will be significantly lower than the Building Regulations standard of  $10\text{m}^3/\text{m}^2/\text{hr}$  targeting  $<3.0\text{m}^3/\text{m}^2/\text{hr}$ ; and

Appropriate glazing provided on elevations to enhance daylight to offices with U-values targeted at  $<1.5\text{W/m}^2\text{K}$ .

The table below shows the proposed building u-values and performance beyond the Building Regulations requirements.

	<b>Proposed U-Value W/(m<sup>2</sup>K)</b>	<b>Limiting U-Value W/(m<sup>2</sup>K)</b>
Office External Walls	0.21W/m <sup>2</sup> K	0.35W/m <sup>2</sup> K
Warehouse External Walls	0.24 W/m <sup>2</sup> K	0.35 W/m <sup>2</sup> K
Ground Floor	0.15W/m <sup>2</sup> K	0.25W/m <sup>2</sup> K
Office Roof	0.15W/m <sup>2</sup> K	0.25W/m <sup>2</sup> K
Warehouse Roof	0.18W/m <sup>2</sup> K	0.25W/m <sup>2</sup> K
Rooflights	1.3W/m <sup>2</sup> K (g-value 53% LT 60%)	2.2W/m <sup>2</sup> K
Windows	1.36W/m <sup>2</sup> K (g-value 40% LT 60%)	2.2W/m <sup>2</sup> K
Personnel doors	1.6W/m <sup>2</sup> K	1.5 – 3.5W/m <sup>2</sup> K
Air permeability	$3\text{ m}^3/(\text{h.m}^2 @ 50\text{ Pa})$	$10\text{ m}^3/(\text{h.m}^2 @ 50\text{ Pa})$

Investing in improved fabric and construction techniques to create a more airtight building dramatically reduces the loss of energy to the external environment, thereby reducing energy needed for heating and cooling requirements.

As part of the detailed design of individual buildings consideration will be given to opportunities to further enhance the building fabric, for example roof lights which have a lower u-value.

This Document includes the summary energy modelling details for the development.

In addition to the fabric efficiency measures proposed the new buildings will include a range of energy efficiency measures to further reduce their energy demand, these include:

- Provision of new, high efficiency LED lighting throughout;

- Automatic controls for all lighting including daylight diming controls in the warehouse area and PIR sensors in toilets; and
- Installation of a sophisticated building energy monitoring system (BEMS) together with a number of energy sub-meters. This system will constantly monitor the existing building and extensions energy use in a number of locations and report any excess energy use.

In accordance with the requirements of BREEAM consideration will also be given to:

- Reducing energy consumption through the adoption of passive design solutions, free cooling and low/zero carbon energy sources;
- Reducing operational greenhouse gas emissions through the design, installation and commissioning of energy efficient refrigeration systems where these are required;
- Reducing energy consumption by specifying the optimum number and size of energy efficient transportation systems (e.g. lifts); and

Additional 'unregulated' energy systems and plug in loads such as office equipment or machinery will be the responsibility of the buildings tenants.

Barberry Bardon Ltd will work with prospective occupants to ensure the detailed design of buildings and energy and carbon emissions reflect the building use, this may include updating the building fabric and design to take into account alternative building uses which may require heating.

Through the fabric first approach and use of energy efficient services the new buildings will secure a significant reduction in regulated carbon emissions beyond the baseline.

	Reduction	Reduction (%)
Total CO <sub>2</sub> emissions reduction per year (kg CO <sub>2</sub> /m <sup>2</sup> )	0.22	14.3%
Primary Energy (kWh <sub>PE</sub> /m <sup>2</sup> )	2.12	12.8%
Total regulated energy consumption reduction (kWh/m <sup>2</sup> )	1.35	12.1%

### Be Lean - Energy Efficient Plant and Services

Once the need for energy has been minimised, the next step in the energy hierarchy is to ensure that the demand for energy is met as efficiently as possible through the consideration of:

- The installation or connection to District Heating systems; and
- The use of efficient heating systems.

District Heating –Policy CS2 Core Strategy Plan requires development to consider the use of decentralised energy. District Heat Networks (DHN) are suited to development with a high annual heat demand where there may be one or more large anchor loads which enables the connection of smaller more intermittent loads.

Typically DHN consists of a centralised energy plant generating heat provided to connected buildings via a network of insulated heat pipes. Most commonly DHNs use gas fired Combined Heat and Power (CHP) which simultaneously generate electricity and heat.

The continued decarbonisation of the national electricity grid as supported by the draft SAP10.1 document published in October 2019 is also reducing the carbon benefit of gas CHP systems.

As noted the warehouse logistics buildings are predominantly unheated with heating limited to the office and ancillary spaces, consequently the overall heat load of the buildings is relatively low.

In this context given the units heating demand is limited to the small office spaces provided, combined with a lack of existing network, it is considered there is insufficient demand within the new development for a DH Network or CHP system to be feasible.

In the case of the Excellence, Land at Wiggs Farm, Station Road, Coalville development, there is no existing infrastructure to connect them to a district heating system. This means heating for the development must be independently managed on-site, which can result in higher energy consumption and emissions compared to centralized solutions.

Energy Efficient Heating Systems – Where heating is required this will be supplied through energy efficient systems appropriate to the level of demand anticipated, at this stage this includes;

- The use of electric panel heaters to provide heating for toilets, reception areas. As noted above the continued decarbonisation of the electricity network favours the use of electricity based heating as a low carbon alternative to gas fired heating; and
- Installation of Air Source Heat Pumps to provide heating to offices spaces. Heat Pumps are a low carbon heating system and are capable of achieving seasonal efficiency of 380%.

Through the provision of energy efficient plant and services the development will further reduce energy consumption and carbon emissions.

## Be Green - Low Carbon Renewable Energy

Barberry Bardon Ltd supports the use of renewable energy technologies where they provide a cost effective and sustainable solution to meeting specific energy needs and can make positive contributions to carbon emission reduction.

Prior to the consideration of low carbon renewable energy the fabric and energy efficiency measures are anticipated to reduce carbon dioxide emissions beyond the requirements of the Building Regulations.

The use of low carbon renewable energy systems can be included to further reduce the carbon emissions of the proposed development. Below potential technologies has are discussed to determine which may be suitable for installation.

**Solar PV** – Solar PV systems can generate electricity for use in buildings and is suitable on south facing or shallow pitched, unobstructed roof spaces. These systems can provide energy for use inside of the buildings to offset regulated and unregulated energy requirements. The buildings at Excellence, Land at Wiggs Farm, Station Road, Coalville will likely include suitable south facing roof spaces which can be used to include Solar PV systems.

For Excellence, Land at Wiggs Farm, Station Road, Coalville the Solar PV strategy has been designed to maximise generation to cover a substantial amount of the buildings base build energy requirements catering for the office areas and vacant warehouse from the point of construction.

To future proof the site the specification of the buildings has been uplifted, with steel weights and foundations enhanced so that Solar PV can be installed across the entire roof zone for the occupiers to extend the array and maximise Solar PV generation for operation. Barberry Bardon Ltd will work with occupiers to understand their energy needs and potential benefits to generating energy.

**Battery Storage** – Battery storage systems can be used to balance the energy demands of a building utilising electricity from the network or from renewable energy generation systems to make efficient use of energy or reduce energy costs. To enable the use of battery storage systems in the future the buildings will be designed to install battery storage systems in the future, this could help manage onsite energy demand and issues with capacity in the local network for the generation and export of energy.

**Solar Thermal Hot Water** – Solar thermal systems are used to generate hot water and work in a similar manner to Solar PV. Hot water use is limited to the toilets and kitchen uses and in this context, it is considered more suitable to provide air source heat pump water cylinders. As noted above the decarbonisation of the electricity network is anticipated to further reduce the carbon emissions from electricity based systems.

**Heat Pump Systems** – Heat pumps provide low grade heat from the ground (Ground Source Heat Pumps, GSHP) or air (Air Source Heat Pumps, ASHP) suitable for heating highly efficient buildings. Heat Pumps can achieve seasonal efficiency of 380% and above and can be used to provide both heating and cooling. These systems are well suited to use in new energy efficiency offices and are proposed for use at Excellence, Land at Wiggs Farm, Station Road, Coalville to provide space heating to the main and ancillary offices.

**Off-Site Renewable Energy Purchase** - As a result of the global climate emergency greater focus is now being placed on the generation and sourcing of energy, as a result there is a growing demand for the procurement of off-site renewable energy.

The Renewable Energy Guarantees of Origin (REGO) scheme is administered by Ofgem and issues one REGO certificate per megawatt hour (MWh) of compliant renewable energy.

Generators of compliant 100% renewable energy (e.g. from wind and solar power) can sell REGO certified electricity which can be purchased by operators to deliver onsite renewable energy. Barberry Bardon Ltd will liaise with future tenants to encourage the use of REGO backed electricity or another alternative (such as Power Purchase Agreements) to provide a renewable source of power for the operation of the buildings.

### **Low Carbon Renewable Energy Summary**

To reduce the energy consumption and carbon emissions of the proposed development buildings will be designed to include the use of ASHPs to provide heating to the office areas, with Solar PV provided to cover a substantial amount of the buildings regulated base build energy demand. For land at Excellence, Land at Wiggs Farm, Station Road, Coalville development, a proposal has been made to install 500 m<sup>2</sup> of photovoltaic (PV) panels, which corresponds to a capacity of 100 kWp

### **Operational Energy and Carbon Strategy Summary**

Through design in accordance with the energy hierarchy the development aims to reduce carbon emissions through both construction and operation, key measures include:

- Undertaking an LCA to assess and reduce the embodied carbon of the development through low carbon design;
- The use of enhanced fabric specification to reduce energy demand and carbon emissions;
- The installation of energy efficient systems including LED lighting to reduce operational energy use and carbon emissions;
- Installation of ASHPs to provide low carbon heat for the building offices.

- Provision of Solar PV to provide energy to cover the buildings regulated base build energy demand.

The buildings will also be designed to facilitate the installation of Solar PV and battery storage systems should tenants be willing to utilise such technology.

Through these measures the development will minimise the energy demand and carbon emissions of the Proposed Development.

The proposed strategy also maximises the onsite generation of low carbon renewable energy, with Solar PV provided to cover a significant amount of the base build regulated office energy as a minimum.

Table 3 sets out the baseline energy use and carbon emissions of the proposed development demonstrating how the development will reduce carbon emissions beyond the requirements of the Building Regulations.

	Regulated Energy Consumption (kWh/m <sup>2</sup> )	Total Carbon Emissions (BER) (kgCO <sub>2</sub> /m <sup>2</sup> )	Cumulative Carbon Savings (kgCO <sub>2</sub> /m <sup>2</sup> )	Cumulative Carbon Saving (%)
Base Built – electric radiator and Conventional chiller 2.6 EER	11.13	1.54		
Proposed Building with ASHP + PV	7.51	1.04	0.5	32.5%

Through these measures the development is targeting 6 BREEAM credits under criterion Ene 01.

The final energy performance and BREEAM credit achieved will be subject to the final design and specification of individual buildings.

The expanded details of this section can be found within the LZC Feasibility Study Report and Passive Design Analysis Documents. The BRUKL and (A9) EPC are in the following Appendix A

## APPENDIX A

### **BRUKL and (A9) EPC Documents**



#### Project name

**Excellence Land at Wiggs Farm 500m2 PV**

As designed

Date: Tue May 13 11:49:39 2025

#### Administrative information

##### Building Details

Address: Station Road, Coalville, Leicestershire, LE67 1GE

##### Certifier details

Name: Worcestershire

Telephone number: DW Pointer & Partners

Address: 4 Sugar Brook Court, Aston Road, Bromsgrove,  
+44 01527 578257

##### Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.28

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.28

BRUKL compliance module version: v6.1.e.1

Foundation area [m<sup>2</sup>]: 611

#### The CO<sub>2</sub> emission and primary energy rates of the building must not exceed the targets

Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> :annum	1.54
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> :annum	1.04
Target primary energy rate (TPER), kWh <sub>PE</sub> /m <sup>2</sup> :annum	16.54
Building primary energy rate (BPER), kWh <sub>PE</sub> /m <sup>2</sup> :annum	11.11
Do the building's emission and primary energy rates exceed the targets?	BER <= TER    BPER <= TPER

#### The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Fabric element	U <sub>a</sub> -Limit	U <sub>a</sub> -Calc	U <sub>i</sub> -Calc	First surface with maximum value
Walls*	0.26	0.24	0.26	WR000000:Surf[173]
Floors	0.18	0.15	0.15	WR000000:Surf[0]
Pitched roofs	0.16	-	-	No pitched roofs in building
Flat roofs	0.18	0.16	0.16	WR000000:Surf[211]
Windows** and roof windows	1.6	1.31	1.31	WR000003:Surf[6]
Rooflights***	2.2	1.3	1.3	WR000000:Surf[183]
Personnel doors <sup>^</sup>	1.6	1.3	1.6	G0000009:Surf[1]
Vehicle access & similar large doors	1.3	-	-	No vehicle access doors in building
High usage entrance doors	3	-	-	No high usage entrance doors in building

U<sub>a</sub>-Limit = Limiting area-weighted average U-values [W/(m<sup>2</sup>K)]

U<sub>i</sub>-Calc = Calculated maximum individual element U-values [W/(m<sup>2</sup>K)]

U<sub>a</sub>-Calc = Calculated area-weighted average U-values [W/(m<sup>2</sup>K)]

\* Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.

\*\* Display windows and similar glazing are excluded from the U-value check.      \*\*\* Values for rooflights refer to the horizontal position.

^ For fire doors, limiting U-value is 1.8 W/m<sup>2</sup>K

NB: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air permeability	Limiting standard	This building
m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa	8	3

## Building services

For details on the standard values listed below, system-specific guidance, and additional regulatory requirements, refer to the Approved Documents.

<b>Whole building lighting automatic monitoring &amp; targeting with alarms for out-of-range values</b>	NO
<b>Whole building electric power factor achieved by power factor correction</b>	>0.95

### 1- AHU- REYA20A

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
<b>This system</b>	4.14	6.63	0	1.56	0.81
<b>Standard value</b>	2.5*	N/A	N/A	2^	N/A
<b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					
^ Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.					

### 2- AHU-DX ERA250AYF

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
<b>This system</b>	4.5	7.3	0	-	0.81
<b>Standard value</b>	2.5*	5	N/A	N/A	N/A
<b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

### 3- AHU- REYA22A

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
<b>This system</b>	4.41	7.17	0	1.56	0.81
<b>Standard value</b>	2.5*	N/A	N/A	2^	N/A
<b>Automatic monitoring &amp; targeting with alarms for out-of-range values for this HVAC system</b>					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					
^ Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.					

### 1- DHW Heat Pump

	Water heating efficiency	Storage loss factor [kWh/litre per day]
<b>This building</b>	3.35	0.005
<b>Standard value</b>	2*	N/A

\* Standard shown is for all types except absorption and gas engine heat pumps.

"No zones in project where local mechanical ventilation, exhaust, or terminal unit is applicable"

General lighting and display lighting		General luminaire	Display light source	
Zone name	Standard value	Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
G0.Warehouse	130	95	80	0.3
G0. Forklift Maintenance	130	-	-	-
G0. Stairs	130	-	-	-
G0. Offices 01	130	-	-	-
G0. Dis WC	130	-	-	-
G0. Shower	130	-	-	-
G0. Fem WC	130	-	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name	Standard value	Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m <sup>2</sup> ]
G0. Stairs	130	-	-	-
G0. Lobby	130	130	1.038	
G0. Plant Room	130	-	-	-
G0. Offices 02	130	-	-	-
G0. Escape Stairs 2	130	-	-	-
G0. Cleaners	130	-	-	-
F1. Dis WC	130	-	-	-
F1. Shower	130	-	-	-
F1. Fem WC	130	-	-	-
F1. Stairs	130	-	-	-
F1. Reception	130	130	1.038	
F1. Male WC	130	-	-	-
F1. Cleaners	130	-	-	-
G0. Office	130	-	-	-
F1. Offices 01	130	-	-	-
F1. Reception	130	130	1.038	
F1. Offices 02	130	-	-	-
F2. Dis WC	130	-	-	-
F2. Shower	130	-	-	-
F2. Fem WC	130	-	-	-
F2. Reception	130	130	1.038	
F2. Male WC	130	-	-	-
F2. Cleaners	130	-	-	-
F2. Offices 01	130	-	-	-
F2. Reception	130	130	1.038	
F3. Dis WC	130	-	-	-
F3. Shower	130	-	-	-
F3. Fem WC	130	-	-	-
F3. Male WC	130	-	-	-
F3. Cleaners	130	-	-	-
F3. Reception	130	130	1.038	
F3. Offices 02	130	-	-	-
F3. Reception	130	130	1.038	
F3. Offices 01	130	-	-	-
G0 QC offices	130	-	-	-
G0. Reception	130	130	1.038	
G0. Reception	130	130	0	
F2. MR	130	-	-	-
F2. MR	130	-	-	-
F2. Offices 02	130	-	-	-

**The spaces in the building should have appropriate passive control measures to limit solar gains in summer**

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
G0.Warehouse	NO (-10.4%)	NO
G0. Offices 01	NO (-9.3%)	NO
G0. Dis WC	N/A	N/A
G0.Shower	N/A	N/A
G0. Fem WC	N/A	N/A
G0. Lobby	N/A	N/A
G0. Offices 02	YES (+20%)	NO
F1. Dis WC	N/A	N/A
F1.Shower	N/A	N/A
F1. Fem WC	N/A	N/A
F1. Reception	YES (+114%)	NO
F1.Male WC	N/A	N/A
F1.Cleaners	N/A	N/A
G0.Office	N/A	N/A
F1. Offices 01	YES (+9.7%)	NO
F1. Reception	N/A	N/A
F1. Offices 02	YES (+49.4%)	NO
F2. Dis WC	N/A	N/A
F2.Shower	N/A	N/A
F2. Fem WC	N/A	N/A
F2. Reception	N/A	N/A
F2.Male WC	N/A	N/A
F2.Cleaners	N/A	N/A
F2. Offices 01	YES (+10%)	NO
F2. Reception	N/A	N/A
F3. Dis WC	N/A	N/A
F3.Shower	N/A	N/A
F3. Fem WC	N/A	N/A
F3.Male WC	N/A	N/A
F3.Cleaners	N/A	N/A
F3. Reception	N/A	N/A
F3. Offices 02	YES (+134.4%)	NO
F3. Reception	N/A	N/A
F3. Offices 01	YES (+56.8%)	NO
G0 QC offices	NO (-58.1%)	NO
G0. Reception	YES (+215.4%)	NO
G0. Reception	YES (+104.5%)	NO
F2. MR	YES (+259.3%)	NO
F2.MR	YES (+224.7%)	NO
F2. Offices 02	YES (+51.5%)	NO

**Regulation 25A: Consideration of high efficiency alternative energy systems**

<b>Were alternative energy systems considered and analysed as part of the design process?</b>	<b>YES</b>
Is evidence of such assessment available as a separate submission?	YES
Are any such measures included in the proposed design?	YES

## Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters		Building Use	
	Actual	Notional	% Area
Floor area [m <sup>2</sup> ]	34779.6	34779.6	Retail/Financial and Professional Services
External area [m <sup>2</sup> ]	82172.2	82172.2	Restaurants and Cafes/Drinking Establishments/Takeaways
Weather	LEE	LEE	Offices and Workshop Businesses
Infiltration [m <sup>3</sup> /hm <sup>2</sup> @ 50Pa]	3	5	General Industrial and Special Industrial Groups
Average conductance [W/K]	20195.4	27695.3	100
Average U-value [W/m <sup>2</sup> K]	0.25	0.34	<b>Storage or Distribution</b>
Alpha value* [%]	25	10	Hotels
			Residential Institutions: Hospitals and Care Homes
			Residential Institutions: Residential Schools
			Residential Institutions: Universities and Colleges

\* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

<b>% Area Building Type</b>	
	Retail/Financial and Professional Services
	Restaurants and Cafes/Drinking Establishments/Takeaways
	Offices and Workshop Businesses
	General Industrial and Special Industrial Groups
<b>100</b>	<b>Storage or Distribution</b>
	Hotels
	Residential Institutions: Hospitals and Care Homes
	Residential Institutions: Residential Schools
	Residential Institutions: Universities and Colleges
	Secure Residential Institutions
	Residential Spaces
	Non-residential Institutions: Community/Day Centre
	Non-residential Institutions: Libraries, Museums, and Galleries
	Non-residential Institutions: Education
	Non-residential Institutions: Primary Health Care Building
	Non-residential Institutions: Crown and County Courts
	General Assembly and Leisure, Night Clubs, and Theatres
	Others: Passenger Terminals
	Others: Emergency Services
	Others: Miscellaneous 24hr Activities
	Others: Car Parks 24 hrs
	Others: Stand Alone Utility Block

## Energy Consumption by End Use [kWh/m<sup>2</sup>]

	Actual	Notional
Heating	0.35	0.88
Cooling	0.4	0.19
Auxiliary	0.38	0.83
Lighting	6.84	3.48
Hot water	1.81	5.74
Equipment*	34.17	34.17
<b>TOTAL**</b>	<b>9.78</b>	<b>11.13</b>

\* Energy used by equipment does not count towards the total for consumption or calculating emissions.

\*\* Total is net of any electrical energy displaced by CHP generators, if applicable.

## Energy Production by Technology [kWh/m<sup>2</sup>]

	Actual	Notional
Photovoltaic systems	2.27	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
<i>Displaced electricity</i>	<i>2.27</i>	<i>0</i>

## Energy & CO<sub>2</sub> Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m <sup>2</sup> ]	12.35	12.06
Primary energy [kWh <sub>PE</sub> /m <sup>2</sup> ]	11.11	16.54
Total emissions [kg/m <sup>2</sup> ]	1.04	1.54

## HVAC Systems Performance

System Type	Heat dem MJ/m <sup>2</sup>	Cool dem MJ/m <sup>2</sup>	Heat con kWh/m <sup>2</sup>	Cool con kWh/m <sup>2</sup>	Aux con kWh/m <sup>2</sup>	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
<b>[ST] Variable refrigerant flow, [HS] ASHP, [HFT] Electricity, [CFT] Electricity</b>									
Actual	64.3	108	4.2	6.5	6.3	4.27	4.61	4.14	6.63
	Notional	100.2	49	10	2.9	13.6	2.78	4.63	----
<b>[ST] Variable refrigerant flow, [HS] ASHP, [HFT] Electricity, [CFT] Electricity</b>									
Actual	58	111.8	3.5	6.2	6.3	4.55	4.99	4.41	7.17
	Notional	88.1	49.5	8.8	3	13.5	2.78	4.63	----
<b>[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity</b>									
Actual	186.7	29.3	11.8	1.5	0	4.41	5.46	4.5	7.3
	Notional	330.4	25.1	33	1.5	0	2.78	4.63	----
<b>[ST] No Heating or Cooling</b>									
Actual	0	0	0	0	0	0	0	0	0
	Notional	0	0	0	0	0	0	----	----

### Key to terms

Heat dem [MJ/m <sup>2</sup> ]	= Heating energy demand
Cool dem [MJ/m <sup>2</sup> ]	= Cooling energy demand
Heat con [kWh/m <sup>2</sup> ]	= Heating energy consumption
Cool con [kWh/m <sup>2</sup> ]	= Cooling energy consumption
Aux con [kWh/m <sup>2</sup> ]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type

# Energy Performance Certificate

Non-Domestic Building



HM Government

Station Road, Coalville  
Leicestershire  
LE67 1GE

**Certificate Reference Number:**

6361-0352-8843-6181-9729

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at [www.gov.uk/government/collections/energy-performance-certificates](http://www.gov.uk/government/collections/energy-performance-certificates).

## Energy Performance Asset Rating

More energy efficient



Less energy efficient

## Technical information

**Main heating fuel:** Grid Supplied Electricity  
**Building environment:** Air Conditioning  
**Total useful floor area (m<sup>2</sup>):** 34779.613  
**Building complexity:** Level 5  
**Building emission rate (kgCO<sub>2</sub>/m<sup>2</sup> per year):** 1.04  
**Primary energy use (kWh<sub>PE</sub>/m<sup>2</sup> per year):** 11.11

## Benchmarks

Buildings similar to this one could have ratings as follows:

- 14** If newly built
- 55** If typical of the existing stock

## Administrative information

This is an Energy Performance Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

**Assessment Software:** Virtual Environment v7.0.28 using calculation engine ApacheSim v7.0.28

**Property Reference:** UPRN-000000000000

**Assessor Name:** Worcestershire

**Assessor Number:** ABCD123456

**Accreditation Scheme:** Information not available

**Assessor Qualifications:** NOS5

**Employer/Trading Name:** Trading Name

**Employer/Trading Address:** Trading Address

**Issue Date:** 13 May 2025

**Valid Until:** 12 May 2035 (unless superseded by a later certificate)

**Related Party Disclosure:** Not related to the owner

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report: 4854-8406-5494-6959-7704

## About this document and the data in it

This document has been produced following an energy assessment undertaken by a qualified Energy Assessor, accredited by Information not available. You can obtain contact details of the Accreditation Scheme at Information not available.

A copy of this certificate has been lodged on a national register as a requirement under the Energy Performance of Buildings Regulations 2012 as amended. It will be made available via the online search function at [www.ndepcregister.com](http://www.ndepcregister.com). The certificate (including the building address) and other data about the building collected during the energy assessment but not shown on the certificate, for instance heating system data, will be made publicly available at [www.opendatacommunities.org](http://www.opendatacommunities.org).

This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. For further information about how data about the property are used, please visit [www.ndepcregister.com](http://www.ndepcregister.com). To opt out of having information about your building made publicly available, please visit [www.ndepcregister.com/optout](http://www.ndepcregister.com/optout).

There is more information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government website at: [www.gov.uk/government/collections/energy-performance-certificates](http://www.gov.uk/government/collections/energy-performance-certificates). It explains the content and use of this document and advises on how to identify the authenticity of a certificate and how to make a complaint.

## Opportunity to benefit from a Green Deal on this property

The Green Deal can help you cut your energy bills by making energy efficiency improvements at no upfront costs. Use the Green Deal to find trusted advisors who will come to your property, recommend measures that are right for you and help you access a range of accredited installers. Responsibility for repayments stays with the property - whoever pays the energy bills benefits so they are responsible for the payments.

To find out how you could use Green Deal finance to improve your property please call 0300 123 1234.