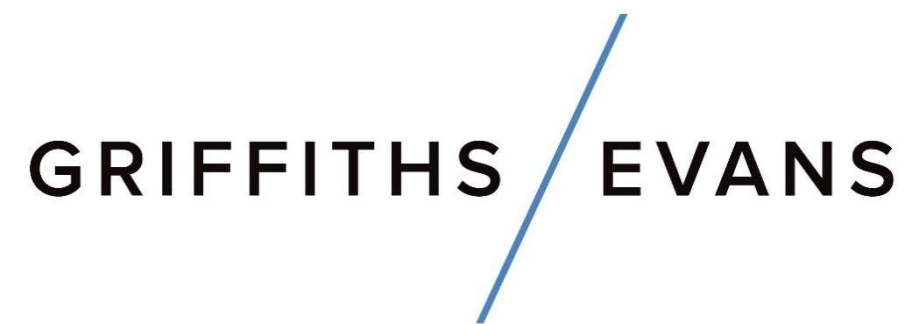




25037.02

**Project Taverna
Planning Energy Statement
Rev P02**

27th February 2026

Revision Record

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First Issue			
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1. Executive Summary

1.1 Planning Policies

This Energy Statement is prepared in accordance with the Places for Everyone (PfE) Joint Development Plan, with reference to Policy JP-S2 (Energy and Carbon) and Policy JP-S3 (Low-Carbon Heat). The methodology and submission expectations follow the GMCA Net Zero Guidance suite (Design Guidance for Net Zero; Low-Carbon Heat; and Submission Guidance including the Energy & Carbon pro-forma). Collectively, these establish the current requirements to minimise energy demand through a fabric-first approach, adopt fossil-fuel-free heat, and maximise on-site renewable energy (e.g., solar PV) where viable, in support of Greater Manchester’s 2038 net-zero objective. The Manchester Core Strategy (2012) also forms part of the adopted local planning framework. Policies EN4 (Reducing CO₂ Emissions), EN5 (Decentralised Energy Infrastructure) and EN6 (Target Framework for CO₂ Reductions) remain in force and must be addressed in this Energy Statement.

1.2 Policy JP-S2 (Energy & Carbon) – Response

JP-S2 requires development to demonstrate a clear energy and carbon strategy that prioritises demand reduction, high-efficiency systems, and on-site low/zero-carbon generation, alongside proportionate consideration of lifecycle (embodied) carbon. In line with JP-S2 and GMCA’s Design/Submission Guidance, Project Taverna applies an energy hierarchy comprising:

- High-performance building fabric with improved U-values and targeted air-tightness
- LED lighting with appropriate controls and daylight/occupancy strategies
- High efficiency HVAC with heat recovery
- Residual loads met by Air Source Heat Pumps (ASHPs)
- Compliance with Part L (2021) is demonstrated via DSM modelling; performance is reported against the notional baseline and supports PfE’s trajectory by reducing regulated emissions beyond minimum standards

1.3 Policy JP-S3 (Low-Carbon Heat) – Response

JP-S3 expects developments to use low-carbon, fossil-fuel-free heat and to assess heat-network connection where available. A review of the GMCA Heat Network Zoning – Zone Opportunity Report (June 2025) indicates the Etihad Campus site is not within an existing or proposed heat-network zone; therefore, district heat connection is not currently proposed. Consistent with JP-S3 and the GMCA Low-Carbon Heat Guidance, the scheme adopts an ASHP-based fully electric strategy for space heating, domestic hot water, and cooling, providing a robust, policy-compliant solution for this location.

1.4 Local Policy Context (EN4 / EN5 / EN6) – Response

Policies considered under the Manchester Core Strategy:

- EN4 (Reducing CO₂ Emissions) requires energy efficient design and reduced operational demand. This is addressed through the project’s fabric first specification, lighting strategy, and energy efficient HVAC systems.
- EN5 (Decentralised Energy Infrastructure) supports engagement with district heat networks. This is satisfied through the site-specific Heat Network Zoning review, which confirms that the Etihad Campus is not within an existing or proposed heat network area.
- EN6 (Low and Zero Carbon Energy Supply) remains an operative local planning requirement and must be met in addition to the Building Regulations. EN6 requires developments to demonstrate at least a 15% reduction in CO₂ emissions relative to a Part L (2010) baseline through low- or zero-carbon technologies. Accordingly, this Energy Statement presents both the Part L (2021) compliance assessment and the EN6-required comparison against the Part L (2010) baseline.

These policies provide useful local context but are secondary to PfE JP-S2 / JP-S3 and the GMCA Net Zero Guidance, which form the primary framework for energy, carbon and heat strategy

1.5 Part L (2021) Energy and Carbon Compliance Modelling Results Overview

By applying the energy hierarchy efficiency measures and renewable energy technologies, this energy strategy demonstrates a 3.50% carbon emission reduction, beyond the Part L (2021) limit, demonstrating compliance with Part L (2021).

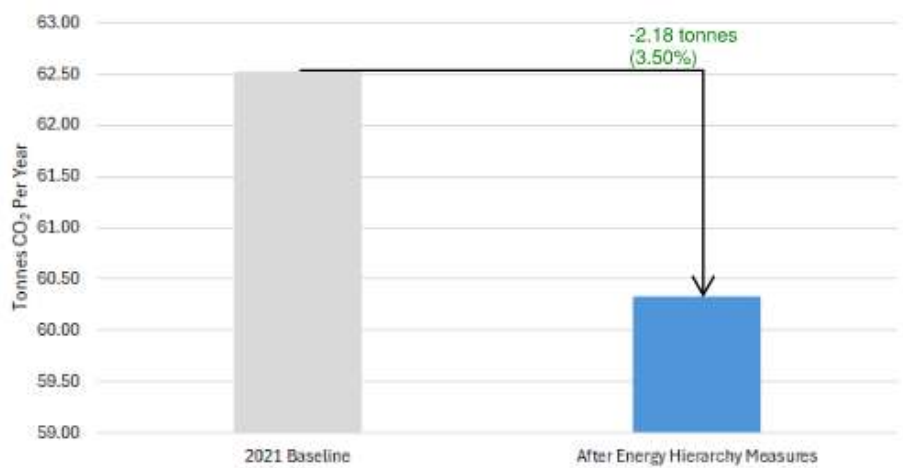


Figure 1: Total regulated carbon emissions reduction (Part L 2021 baseline)

	Energy Demand MWh/year	CO ₂ Emissions kgCO ₂ /year
Building Regulations Part L 2021 compliant development (Baseline)	461.16	62,512
After Energy Efficiency Measures and Renewable Technologies	433.87	60,326
Total Percentage Improvement	-5.92%	-3.50%

Table 1: Summary of the regulated aggregated emissions and savings of the new development buildings (Part L 2021 baseline)

1.6 Part L (2010) EN6 Carbon Reduction Compliance Overview

Manchester Core Strategy Policy EN6 (Target Framework for CO₂ reductions from low or zero carbon energy supplies) requires new development to demonstrate a minimum 15% reduction in CO₂ emissions relative to a Part L (2010) baseline, delivered through low- or zero-carbon (LZC) technologies. To meet this requirement, a separate DSM assessment has been undertaken using the Part L (2010) notional building as the baseline.

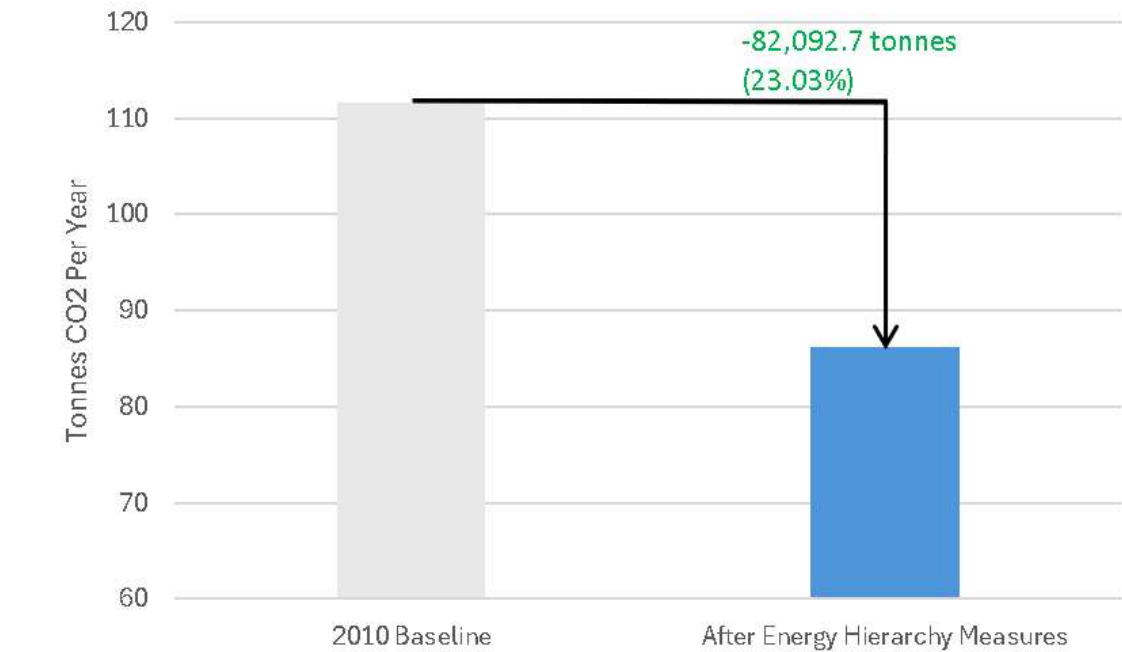


Figure 2: Total regulated carbon emissions reduction (Part L 2010 baseline)

	CO ₂ Emissions kgCO ₂ /year
Building Regulations Part L 2010 compliant development (Baseline)	369,507.6
After Energy Efficiency Measures and Renewable Technologies	284,414.9
Total Percentage Improvement	-23.03%

Table 2: Summary of the regulated aggregated emissions and savings of the new development buildings (Part L 2010 baseline)

2. Introduction

This report has been prepared in accordance with the Local Development Plan in Manchester, which includes;

- The Manchester Core Strategy (2012) and its Addendum (2024)
- Places for Everyone (PfE) Joint Development Plan
- Saved Policies of the Manchester Unitary Development Plan (1995)

The purpose of the report is to summarise the energy strategy for the new permanent Project Taverna buildings at the Etihad Campus and to demonstrate compliance with both the current Building Regulations and the wider Greater Manchester planning policy framework.

2.1 The Proposed Development

The permanent development comprises of a circa 600-person capacity venue at the Collar Site of the Etihad Campus, to accommodate "Project Taverna", an immersive dining experience. The Site is bound by the Metrolink line to the north, Alan Turing Way to the east, Gibbon Street to the south, and Loverose Street to the west. The permanent operational horizon enables optimisation of lifecycle carbon performance. The development has been designed so that future integration of PV is possible, although no PV is included in the current planning energy model.

2.2 Planning Policies

This Energy Statement responds to the Local Development Framework in Manchester, which comprises the Places for Everyone (PfE) Joint Development Plan at the regional level and the Manchester Core Strategy (2012) and its Addendum (2024) at the local level. Accordingly, the assessment has been structured to address both the regional policy requirements relating to energy, carbon and heat networks, and the local requirements that continue to apply to new development in Manchester.

Under PfE Policy JP-S2 (Energy and Carbon), new development is expected to demonstrate a clear and transparent approach to reducing operational energy demand, improving fabric performance, limiting lifecycle carbon impacts, and incorporating on-site renewable energy where viable. JP-S2 sets out Greater Manchester's pathway toward its 2038 net-zero commitment and requires development to follow an energy hierarchy of demand reduction, efficient low-carbon systems, and renewable energy generation.

PfE Policy JP-S3 (Low-Carbon Heat) requires the adoption of fossil-fuel-free heating and the consideration of opportunities to connect to existing or emerging heat networks. Where connection is not feasible, technologies such as Air Source Heat Pumps (ASHPs) are recognised as an appropriate low-carbon alternative. The policy is supported by GMCA's Low-Carbon Heat Guidance, which outlines the criteria for selecting appropriate heat sources and assessing network viability across the city region.

The Energy Statement also follows the GMCA Net Zero Guidance suite, including the Design Guidance for Net Zero, Low-Carbon Heat Guidance, and Submission Guidance, together with the GMCA Energy & Carbon pro-forma. These documents provide the methodology for demonstrating compliance with JP-S2 and JP-S3, including calculation approaches, energy hierarchy expectations, assessment of renewable energy opportunities, and the evidence required to justify system choices.

At the local level, Manchester's Core Strategy policies pertinent to this statement are;

- EN4 (Reducing CO₂ Emissions) requires development to minimise energy demand through building design and efficient systems.

- EN5 (Decentralised Energy Infrastructure) supports the identification and utilisation of decentralised energy networks.
- EN6 (Low and Zero Carbon Energy Supply) sets improvement targets based on the former Part L (2010) baseline.

While these policies now operate alongside a strengthened regional framework under PfE, they remain in force and are addressed directly in this Energy Statement. PfE JP-S2 and JP-S3 therefore provide the overarching strategic context, with EN4, EN5 and EN6 providing the specific local policy mechanisms relevant to the energy, carbon and heat strategy for this development.

3. Energy Statement Calculations Summary

3.1 Building Energy Modelling

The developments’ carbon emissions have been calculated using the IES Dynamic Simulation Model (DSM) software package version 2025, which is approved for demonstrating compliance with Part L Volume 2 of the UK Building Regulations, 2021. To satisfy Policy EN6, the same proposed building geometry and system configuration have also been evaluated against the Part L (2010) notional baseline.

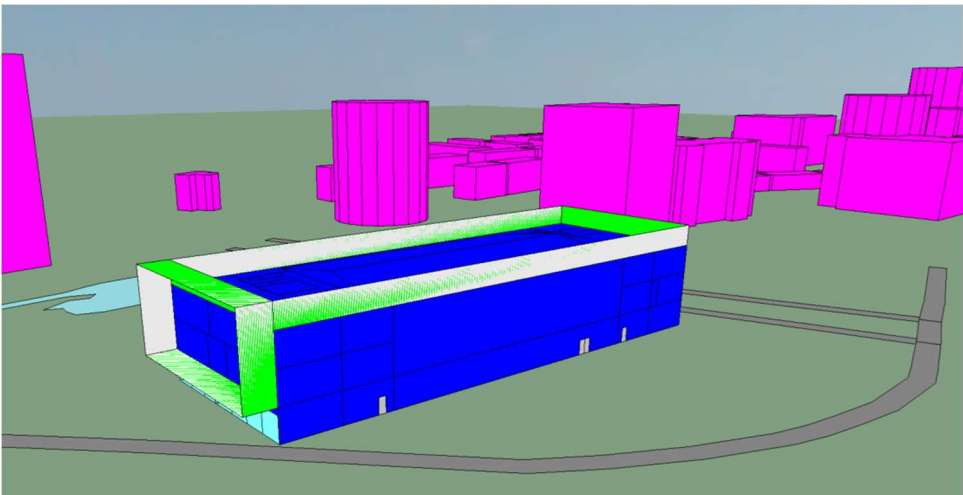


Figure 3: IES Energy Model Geometry

3.2 Proposed Scheme Energy Efficiency Measures

In line with Manchester's Local Development Framework, Core Strategy Development Plan Document (11th July 2012), Policy EN4, the design will minimise energy requirements by achieving a betterment to Part L Volume 2 of the Building Regulations (2021). These measures reduce the energy demand for the development under the Part L (2021) assessment and contribute to the improved carbon performance achieved relative to the Part L (2010) baseline for the EN6 calculation. To reduce the energy demand for the development in line with the PfE energy hierarchy items relating to the building design, the design includes the following:

High Performance Building Fabric

The development will exceed the building envelope thermal performance requirements as set out by the UK Building Regulations Part L 2021 minimum requirements for thermal insulation (U-Values). The building airtightness is proposed to be the best which can be realistically achieved during construction. These measures are included to minimise the energy demand of the building.

Lighting

Lighting plays an important role in the level of carbon emissions from a building, and therefore, the design includes solutions that minimise the consumption of energy for lighting. This includes the use of LED technology and energy saving lighting control strategies. High efficiency lighting systems are included to maximise the energy efficiency of the building.

Mechanical Systems

High quality and energy efficient mechanical plant will be an influential factor in the reduction of primary energy consumption and carbon emissions. The mechanical systems will be designed to consume as little energy as possible.

This will be achieved by:

- Accurate sizing of plant, to avoid over-sized plant operating inefficiently at part loads.
- Zoning of heating and ventilation systems.
- Air to air heat recovery in ventilation systems, where practical.
- Enhanced thermal insulation to heating systems, plant, and distribution pipes.
- Selecting fans to achieve the best Specific Fan Power achievable for a given system.
- Using a viable volume flow control strategy for heating systems, using inverter speed controllers for the pumps.

Automatic Controls and Energy Management Systems

The centralised HVAC and hot water plant will utilise automatic controls which schedule the operation of the plant and optimise control for maximum energy efficiency.

Modelling Input Criteria

The baseline carbon emissions for the Part L (2021) assessment are calculated by DSM using the proposed building’s geometry together with the pre-determined thermal envelope and fixed building-services performance defined within the notional building.

These same input criteria have been used as the basis for the Part L (2010) EN6 assessment, ensuring consistency across both modelling baselines. The modelling parameters applied to the proposed building—including thermal performance, airtightness, lighting and mechanical systems—reflect the energy-efficiency measures described above.

Table 3: Modelling Inputs

(DSM) input parameters		
System		Input Parameter
U-Values (W/m².K)	Roof	0.13 W/m²K
	Walls	0.26 W/m²K
	Floor	0.15 W/m²K
	Glazing (including frame)	1.20 W/m²K
Y-Values		Default - 25% of the overall average u-value
Air permeability (m3/(hr.m2) @ 50 Pa)		3.0
Central Heating and Domestic Hot Water	Source	Main performance areas - Heat pump integrated into the ventilation plant Front of house/reception – VRF Air Source Heat Pump Back of house/reception – VRF Air Source Heat Pump
	Fuel	Mains Electric
	Controls	Room thermostat
	DHW	Heat Pump
Cooling		All habitable rooms
Internal lighting		100% Low Energy LEDs
Ventilation		Heat recovery mechanical ventilation.
Low carbon technology		Heat pumps

3.3 Renewable Energy Technologies

This section describes the Low and Zero Carbon (LZC) technologies which have been considered for the buildings.

Renewable technology	Overview
Air source heat pumps	<p>An air source heat pump extracts heat from the air and increases its temperature for use within the building. Under the Renewable Energy Directive 2009/28/EC, they are classified as renewable technologies provided that the final energy outputs significantly exceed the primary energy input required to drive the heat pump. ASHP need to be located externally where outside air can circulate freely through the ASHP heat exchangers. This aligns with PfE Policy JP-S3 (Low-Carbon Heat), which identifies heat pumps as an appropriate low-carbon solution where heat networks are not available. A review of the GMCA Heat Network Zoning evidence confirms that the Etihad Campus is not within an existing or proposed heat-network zone, and therefore a network connection is not feasible for this development.</p> <p>Suitability to Proposed development ASHP technology offers significant carbon emission reductions over the gas boiler baseline scenario. ASHP plant will be located at roof level and integrated into space heating and hot water systems. Implementing heat-pump technology brings the additional benefit of a shift towards combustion-free development, with the associated benefit to local air quality.</p> <p>This approach will result in significant regulated CO₂ emission reductions beyond the UK Building Regulations Part L (2021) TER Baseline. In addition, ASHPs form part of the low- and zero-carbon measures used to demonstrate compliance with Manchester Core Strategy Policy EN6, which is assessed against a Part L (2010) baseline and requires a ≥15% CO₂ reduction.</p> <p>ASHPs are proposed for the development to supply all domestic hot water and space heating loads. The ASHP equipment also provides the cooling source for the HVAC systems. Seasonal efficiencies for ASHP's for heating, cooling, and hot water generation;</p> <ul style="list-style-type: none"> Seasonal Energy Efficiency Rating (Cooling) = 3.79 Seasonal Coefficient of Performance (Heating) = 3.60 Seasonal Coefficient of Performance (Hot Water) = 3.44 <p>The efficiency factors have been applied to the energy model as the hot water, space heating, and space cooling primary plant efficiencies.</p>
Photovoltaics	The building achieves the required improvements over Part L targets without any PV, thus no PV is included in the current Part L 2021 or Part L 2010 (EN6) models.

3.4 Summary of Energy Modelling Results for the Proposed Design

A separate comparison against the Part L (2010) notional building has been completed in accordance with Manchester Core Strategy EN6 and demonstrates that the development achieves a ≥15% reduction in regulated CO₂ emissions through the proposed ASHP. Confirming that the proposed ASHP technology provides the necessary low-carbon contribution required under EN6.

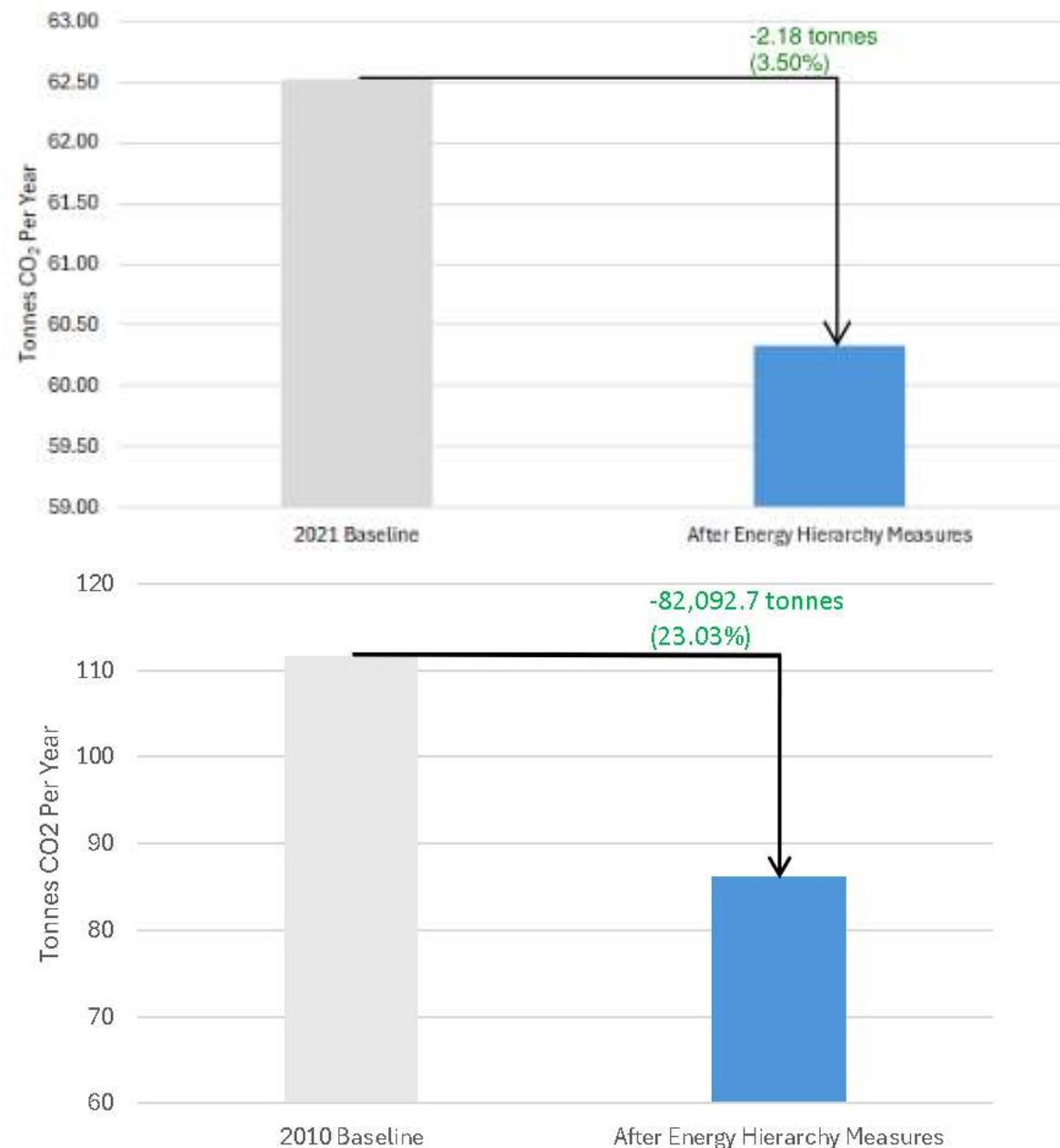
Total Energy Demand and Carbon Emissions Summary

	Energy Demand MWh/year	CO ₂ Emissions kgCO ₂ /year
Building Regulations Part L 2021 compliant development (Baseline)	461.16	62,512
After Energy Efficiency Measures and Renewable Technologies	433.87	60,326
Total Percentage Improvement	-5.92%	-3.50%
Building Regulations Part L 2010 compliant development (Baseline)	N/A	369,507.6
After Energy Efficiency Measures and Renewable Technologies	N/A	284,414.9
Total Percentage Improvement	N/A	-23.03%

Energy Demand by End Use

	Energy Demand (MWh/year)					
	Space heating	Hot water	Lighting	Cooling	Auxiliary	Unregulated electricity
Building Regulations Part L 2021 compliant development (Baseline)	11.85	385.00	21.42	7.25	35.62	206.34
After Energy Efficiency Measures and Renewable Technologies	18.24	316.60	27.38	5.69	65.96	206.34
Building Regulations Part L 2010 compliant development (Baseline)	23.84	585.52	49.04	8.84	66.15	206.34
After Energy Efficiency Measures and Renewable Technologies	17.81	439.60	22.32	7.09	65.16	206.34

Total of new buildings, Regulated Carbon Emissions for the Baseline, Energy Efficiency Measure, and Low and Zero Carbon Energy



future PV installation, with suitable roof space, structural capacity and electrical provision reserved so that PV can be added at a later stage if required

In response to Policy EN4, the scheme follows the energy hierarchy, prioritising demand reduction and system efficiency before applying low-carbon technologies. In response to Policy EN5, a review of the GMCA Heat Network Zoning – Zone Opportunity Report (June 2025) confirms that the Etihad Campus is not located within an existing or proposed heat-network zone, and therefore a district heat connection is not included. The ASHP system therefore represents the appropriate low-carbon heat approach.

While the design follows the PfE energy hierarchy items related to energy usage reduction by incorporating a fabric-first approach along with efficient HVAC and lighting systems, achieving an operational net zero carbon target is not considered practical for this project due to site and budgetary constraints.

Overall, Project Taverna delivers a compliant and future-ready strategy aligned with relevant UK Building Regulations, legislation, and the Local Development Plan.

4. Conclusion

This Energy Statement concludes that Project Taverna achieves a 3.50% reduction in regulated carbon emissions relative to the Part L 2021 notional baseline through a combination of enhanced building fabric, efficient building services and a fully electric Air Source Heat Pump (ASHP) strategy. No solar PV is included in the current Part L 2021 or Part L 2010 (EN6) models, both of which remain compliant.

To address Manchester Core Strategy Policy EN6, a separate Part L 2010 assessment has been completed. This demonstrates a 23.03% reduction in regulated CO₂ emissions compared to the Part L 2010 baseline, achieved through energy-efficiency measures and the proposed ASHP-based low-carbon strategy. The design also safeguards

BRUKL Output Document **HM Government**
Compliance with England Building Regulations Part L 2021

The CO₂ emission and primary energy rates of the building must not exceed the targets

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

Fabric element	U _{A-Limit}	U _{A-Calc}	U _{A-Calc}	First surface with maximum value
Walls*	0.26	0.26	0.26	1F000014:Surf[0]
Floors	0.18	0.15	0.15	2F000008:Surf[0]
Pitched roofs	0.16	-	-	No pitched roofs in building
Flat roofs	0.18	0.13	0.13	1F000006:Surf[0]
Windows** and roof windows	1.6	1.2	1.2	1_000003:Surf[1]
Rooflights***	2.2	-	-	No roof lights in building
Personnel doors^	1.6	1.3	1.3	GF000002:Surf[0]
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_{A-Limit} = Limiting area-weighted average U-values [W/(m²K)]
U_{A-Calc} = Calculated area-weighted average U-values [W/(m²K)]
U_{CALC} = Calculated maximum individual element U-values [W/(m²K)]

* 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/m²K

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 ³ /(h.m ²) at 50 Pa	8	3

Building Global Parameters			Building Use	
	Actual	Notional	% Area	Building Type
Floor area [m ²]	3311	3311		Retail/Financial and Professional Services Restaurants and Cafes/Drinking Establishments/Takeaways Offices and Workshop Businesses General Industrial and Special Industrial Groups Storage or Distribution
External area [m ²]	7079	5790.7	1	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
Weather	MAN	MAN		
Infiltration [m ³ /hm ² @ 50Pa]	3	3		
Average conductance [W/K]	1459.69	1546.47		
Average U-value [W/m ² K]	0.21	0.27		
Alpha value* [%]	24.56	10	99	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

	Actual	Notional
Heating	5.51	3.58
Cooling	1.72	2.19
Auxiliary	19.92	10.76
Lighting	8.27	6.47
Hot water	95.62	116.28
Equipment*	62.32	62.32
TOTAL**	131.04	139.28

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

	Actual	Notional
Heating + cooling demand [MJ/m ²]	85.97	72.33
Primary energy [kWh _{PE} /m ²]	198.41	205.58
Total emissions [kg/m ²]	18.22	18.88

Appendix B – BRUKL Reports (Part L 2010)

BRUKL Output Document HM Government
Compliance with England and Wales Building Regulations Part L 2010

Project name

25037-MCFC-Project_Taverna_Hall (Part L 2010) As built

Date: Thu Feb 19 15:14:12 2026

Administrative information

Building Details

Address: Address 1, City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.16

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.16

BRUKL compliance check version: v4.1.h.0

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Criterion 1: The calculated CO₂ emission rate for the building should not exceed the target

1.1	CO ₂ emission rate from the notional building, kgCO ₂ /m ² .annum	111.6
1.2	Target CO ₂ emission rate (TER), kgCO ₂ /m ² .annum	111.6
1.3	Building CO ₂ emission rate (BER), kgCO ₂ /m ² .annum	85.9
1.4	Are emissions from the building less than or equal to the target?	BER =< TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

2.a Building fabric

Element	U _{g-Limit}	U _{g-Calc}	U _{i-Calc}	Surface where the maximum value occurs*
Wall**	0.35	0.26	0.26	1F000014:Surf[0]
Floor	0.25	0.15	0.15	2F000008:Surf[0]
Roof	0.25	0.13	0.13	1F000006:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.2	1.2	1_000003:Surf[1]
Personnel doors	2.2	1.3	1.3	GF000002:Surf[0]
Vehicle access & similar large doors	1.5	-	-	No vehicle access doors in building
High usage entrance doors	3.5	-	-	No high usage entrance doors in building
U _{g-Limit} = Limiting area-weighted average U-values [W/(m ² K)]				
U _{g-Calc} = Calculated area-weighted average U-values [W/(m ² K)]				
U _{i-Calc} = Calculated maximum individual element U-values [W/(m ² K)]				
* There might be more than one surface where the maximum U-value occurs.				
** 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.				
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.				

Air Permeability	Worst acceptable standard	This building
m ³ /(h.m ²) at 50 Pa	10	3

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters			Building Use	
	Actual	Notional	% Area	Building Type
Area [m ²]	3311	3311		A1/A2 Retail/Financial and Professional services
External area [m ²]	7079	5790.7		A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
Weather	MAN	MAN		B1 Offices and Workshop businesses
Infiltration [m ³ /hm ² @ 50Pa]	3	5		B2 to B7 General Industrial and Special Industrial Groups
Average conductance [W/K]	1459.69	2057.75		B8 Storage or Distribution
Average U-value [W/m ² K]	0.21	0.36	1	C1 Hotels
Alpha value* [%]	9.83	10		C2 Residential Inst.: Hospitals and Care Homes

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

	C2 Residential Inst.: Residential schools
	C2 Residential Inst.: Universities and colleges
	C2A Secure Residential Inst.
	Residential spaces
	D1 Non-residential Inst.: Community/Day Centre
	D1 Non-residential Inst.: Libraries, Museums, and Galleries
	D1 Non-residential Inst.: Education
	D1 Non-residential Inst.: Primary Health Care Building
	D1 Non-residential Inst.: Crown and County Courts
99	D2 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/m²]

	Actual	Notional
Heating	4.6	7.2
Cooling	2.33	2.67
Auxiliary	19.68	19.98
Lighting	6.74	14.81
Hot water	132.77	176.84
Equipment*	62.32	62.32
TOTAL**	166.12	221.49

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

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

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO₂ Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m ²]	80.02	102.63
Primary energy* [kWh/m ²]	485.07	646.73
Total emissions [kg/m ²]	85.9	111.6

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