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RESIDENTIAL ENERGY CONSUMPTION AND CO₂ ANALYSIS (PART L1)

NON-RESIDENTIAL ENERGY CONSUMPTION AND CO₂ ANALYSIS (PART L2)

	VALIDATION CHECK	REGULATED ENERGY CONSUMPTION BY END USE (kWh/m ² p.a.) 'BE LEAN' BER - SOURCE: 'SIM.CSV FILE	REGULATED CO ₂ EMISSIONS BY FUEL TYPE (kgCO ₂ /m ² p.a.) - BER BRUKL - SOURCE: 'SIM.CSV FILE
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SITE-WIDE ENERGY CONSUMPTION AND CO₂ ANALYSIS

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RESIDENTIAL ENERGY CONSUMPTION AND CO₂ ANALYSIS (PART L1)

NON-RESIDENTIAL ENERGY CONSUMPTION AND CO₂ ANALYSIS (PART L2)

TOTAL AREA			VALIDATION CHECK		REGULATED ENERGY CONSUMPTION BY END USE (kWh/m ² a) 'RE CLEAN' REF. SOURCE: BRUKI OUTPUT		REGULATED CO ₂ EMISSIONS (kgCO ₂ /m ² a) REF. BRUKI - SOURCE: 'SIM.CSV' FILE	
Building Use	Model Area (m ²)	Number of units represented by						

SITE-WIDE ENERGY CONSUMPTION AND CO₂ ANALYSIS

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RESIDENTIAL ENERGY CONSUMPTION AND CO₂ ANALYSIS (PART L1)

Unit identifier (B-B plot number, dwelling type etc.)					Total area represented by model (m²)		REGULATED ENERGY CONSUMPTION PER UNIT (kWh p.a.) - 'BE GREEN' SAP DER WORKSHEET																	REGULATED CO₂ EMISSIONS PER UNIT (kgCO₂ p.a.)										Part L 2021 CO₂ emissions (kgCO₂ p.a.)
							VALIDATION CHECK																											
							Calculated DER (kgCO₂ / m³)	DER Worksheet DER (kgCO₂ / m³)	Space Heating (Heat Source 1)	Fuel type Space Heating	Domestic Hot Water (Heat Source 1)	Fuel type Domestic Hot Water	Space Heating (Heat source 2)	Fuel type Space Heating	Domestic hot Water (Heat source 2)	Fuel type Domestic Hot Water	Space and Domestic Hot Water from CHP	Fuel type CHP generated by CHP (-)	Total Electricity generated by electricity generated by CHP	Fuel factors for Secondary Heating system	Fuel type Secondary Heating	Electricity generated by renewable (-)	Lighting	Auxiliary	Cooling	Space Heating Water	Domestic Hot Water	Space Heating and DHW from CHP	Electricity generated by CHP	Lighting	Auxiliary	Cooling	Electricity generated by renewable	
DER Sheet (Row 364)		DER Sheet (Row 367b + (Row 367c x 0.01))	Select fuel type	DER Sheet (Row 367b + (Row 367c x 0.01))	Select fuel type	If applicable	Select fuel type	If applicable	Select fuel type	If applicable	Select fuel type	If applicable	DER Sheet (Row 316c + (Row 367c x 0.01))	Select fuel type	DER Sheet (Row 367a + (Row 367c x 0.01))	Select fuel type	DER Sheet Row 313	DER Sheet Row 312	DER Sheet (Row 313 + 331)	DER Sheet Row 316	If applicable					If applicable								
1	103	1	103	3.8	4.3	944.0338	Grid Electricity	1818.1833	Grid Electricity	-	-	-	-	-	-	-180.2464	233.1075	288.0002	-	-	-	108	247	-	-	63	78	0	-62	384				
2	103	1	103	3.8	4.3	936.1446	Grid Electricity	1818.1833	Grid Electricity	-	-	-	-	-	-	-180.2464	233.1075	288.0002	-	-	-	127	247	-	-	63	78	0	-62	384				
Sum					2	206	3.8	-	1,881	N/A	3,637	N/A	0	N/A	0	N/A	0	0	0	0	N/A	-760	464	572	0	256	495	0	0	63	78	0	-163	768

NON-RESIDENTIAL ENERGY CONSUMPTION AND CO₂ ANALYSIS (PART L2)

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SITE-WIDE ENERGY CONSUMPTION AND CO ₂ ANALYSIS									
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			REGULATED ENERGY CONSUMPTION																REGULATED CO ₂ EMISSIONS	
Total Area (m ²)	Calculated BER (kgCO ₂ / m ²)		Space Heating (kWh p.a.)		Domestic Hot Water (kWh p.a.)		Space Heating (Heat source 2) (kWh p.a.)		Domestic Hot Water (Heat source 2) (kWh p.a.)		Space and Domestic Hot Water from CHP (kWh p.a.)		Electricity generated by CHP (kWh p.a.)	Secondary Heating system	Electricity generated by renewables (kWh p.a.)	Lighting (kWh p.a.)	Auxiliary (kWh p.a.)	Cooling (kWh p.a.)	Fuel L 2011 CO ₂ emissions	
			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sum	268	3.8	-	1,881		3,637		0		0		0		0		-765	464	872		788

Part L 2021 Performance

Residential

Table 1: Carbon Dioxide Emissions after each stage of the Energy Hierarchy for residential buildings

	Carbon Dioxide Emissions for residential buildings (Tonnes CO ₂ per annum)	
	Regulated	Unregulated
Baseline: Part L 2021 of the Building Regulations Compliant Development	2.9	
After energy demand reduction (be lean)	2.6	
After heat network connection (be clean)	2.6	
After renewable energy (be green)	0.8	

Table 2: Regulated Carbon Dioxide savings from each stage of the Energy Hierarchy for residential buildings

	Regulated residential carbon dioxide savings	
	(Tonnes CO ₂ per annum)	(%)
Be lean: savings from energy demand reduction	0.3	12%
Be clean: savings from heat network	0.0	0%
Be green: savings from renewable energy	1.8	62%
Cumulative on site savings	2.1	73%
Annual savings from off-set payment	0.8	-
	(Tonnes CO ₂)	
Cumulative savings for off-set payment	24	-
Cash in-lieu contribution (£)	2,246	

*carbon price is based on GLA recommended price of £95 per tonne of carbon dioxide unless Local Planning Authority price is inputted in the 'Development Information' tab

Non-residential

Table 3: Carbon Dioxide Emissions after each stage of the Energy Hierarchy for non-residential buildings

	Carbon Dioxide Emissions for non-residential buildings (Tonnes CO ₂ per annum)	
	Regulated	Unregulated
Baseline: Part L 2021 of the Building Regulations Compliant Development	0.0	
After energy demand reduction (be lean)	0.0	
After heat network connection (be clean)	0.0	
After renewable energy (be green)	0.0	

Table 4: Regulated Carbon Dioxide savings from each stage of the Energy Hierarchy for non-residential buildings

	Regulated non-residential carbon dioxide savings	
	(Tonnes CO ₂ per annum)	(%)
Be lean: savings from energy demand reduction	0.0	0%
Be clean: savings from heat network	0.0	0%
Be green: savings from renewable energy	0.0	0%
Total Cumulative Savings	0.0	0%
Annual savings from off-set payment	0.0	-
	(Tonnes CO ₂)	
Cumulative savings for off-set payment	0	-
Cash in-lieu contribution (£)	0	

*carbon price is based on GLA recommended price of £95 per tonne of carbon dioxide unless Local Planning Authority price is inputted in the 'Development Information' tab

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SITE-WIDE

	Total regulated emissions (Tonnes CO ₂ / year)	CO ₂ savings (Tonnes CO ₂ / year)	Percentage savings (%)
Part L 2021 baseline	2.9		
Be lean	2.6	0.3	12%
Be clean	2.6	0.0	0%
Be green	0.8	1.8	62%
Total Savings	-	2.1	73%
	-	CO ₂ savings off-set (Tonnes CO ₂)	-
Off-set	-	23.6	-

	Target Fabric Energy Efficiency (kWh/m²)	Dwelling Fabric Energy Efficiency (kWh/m²)	Improvement (%)
Development total	0.00	0.00	

	Area weighted non-residential cooling demand (MJ/m²)	Total area weighted non-residential cooling demand (MJ/year)
Actual		
Notional		

EUI & space heating demand (predicted energy use)

Building type	EUI (kWh/m²/year) (excluding renewable energy)	Space heating demand (kWh/m²/year) (excluding renewable energy)	EUI value from Table 4 of the guidance (kWh/m²/year) (excluding renewable energy)	Space heating demand from Table 4 of the guidance(kWh/m²/ye ar) (excluding renewable energy)	Methodology used (e.g. 'be seen' methodology or an alternative predictive energy modelling methodology)	Explanatory notes (if expected performance differs from the Table 4 values in the guidance)
Residential						