

Assessor and House Details

Assessor Name: Neil Ingham **Assessor Number:** STRO002943
Property Address: Flat A
 61 Gray's Inn Road
 LONDON
 WC1X 8TH

Buiding regulation assessment

TER **kg/m²/year** 30.17
 DER 13.76

The following code calculations are taken from the Code for Sustainable Homes Technical Guide (Nov 10)

Ene 1 Assessment - Dwelling Emission Rate

Total Energy Type CO2 Emissions for Codes Levels 1 - 5

	%	kg/m ² /year	
DER from SAP 2009 DER Worksheet		13.76	(ZC1)
TER		30.17	
Residual CO2 emissions offset from biofuel CHP		0	(ZC5)
CO2 emissions offset from additional allowable electricity generation		0	(ZC7)
Total CO2 emissions offset from SAP Section 16 allowances		0	
DER accounting for SAP Section 16 allowances		13.76	
% improvement DER/TER	54.41		

Total Energy Type CO2 Emissions for Codes Levels 6

	kg/m ² /year	
DER accounting for SAP Section 16 allowances	13.76	(ZC1)
CO2 emissions from appliances, equation (L14)	15.23	(ZC2)
CO2 emissions from cooking, equation (L16)	1.88	(ZC3)
Net CO2 emissions	30.9	(ZC8)

Result:

Credits awarded for Ene 1 = 5.6

Code Level = 4

Ene 2 - Fabric energy Efficiency

Fabric energy Efficiency: 53.57

Credits awarded for Ene 2 = 0

Ene 7 - Low or Zero Carbon (LZC) Technologies

Reduction in CO2 Emissions

	%	kg/m ² /year	
Standard Case CO2 emissions		35.5	
*Actual Case CO2 emissions		30.9	
Reduction in CO2 emissions	12.96		

Credits awarded for Ene 7 = 1

Assessor and House Details

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Property Address:	Flat B 61 Gray's Inn Road LONDON WC1X 8TH		

Buiding regulation assessment

	kg/m²/year
TER	49.48
DER	23.35

The following code calculations are taken from the Code for Sustainable Homes Technical Guide (Nov 10)

Ene 1 Assessment - Dwelling Emission Rate

Total Energy Type CO2 Emissions for Codes Levels 1 - 5

	%	kg/m ² /year	
DER from SAP 2009 DER Worksheet		23.35	(ZC1)
TER		49.48	
Residual CO2 emissions offset from biofuel CHP		0	(ZC5)
CO2 emissions offset from additional allowable electricity generation		0	(ZC7)
Total CO2 emissions offset from SAP Section 16 allowances		0	
DER accounting for SAP Section 16 allowances		23.35	
% improvement DER/TER	52.8		

Total Energy Type CO2 Emissions for Codes Levels 6

	kg/m ² /year	
DER accounting for SAP Section 16 allowances	23.35	(ZC1)
CO2 emissions from appliances, equation (L14)	17.89	(ZC2)
CO2 emissions from cooking, equation (L16)	3.77	(ZC3)
Net CO2 emissions	45	(ZC8)

Result:

Credits awarded for Ene 1 = 5.5

Code Level = 4

Ene 2 - Fabric energy Efficiency

Fabric energy Efficiency: 83.95

Credits awarded for Ene 2 = 0

Ene 7 - Low or Zero Carbon (LZC) Technologies

Reduction in CO2 Emissions

	%	kg/m ² /year	
Standard Case CO2 emissions		52.5	
*Actual Case CO2 emissions		45	
Reduction in CO2 emissions	14.29		

Credits awarded for Ene 7 = 1

Assessor and House Details

Assessor Name: Neil Ingham **Assessor Number:** STRO002943
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 61 Gray's Inn Road
 LONDON
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Buiding regulation assessment

TER 31.01
 DER 13.83
The following code calculations are taken from the Code for Sustainable Homes Technical Guide (Nov 10)

Ene 1 Assessment - Dwelling Emission Rate

Total Energy Type CO2 Emissions for Codes Levels 1 - 5

	%	kg/m ² /year	
DER from SAP 2009 DER Worksheet		13.83	(ZC1)
TER		31.01	
Residual CO2 emissions offset from biofuel CHP		0	(ZC5)
CO2 emissions offset from additional allowable electricity generation		0	(ZC7)
Total CO2 emissions offset from SAP Section 16 allowances		0	
DER accounting for SAP Section 16 allowances		13.83	
% improvement DER/TER	55.39		

Total Energy Type CO2 Emissions for Codes Levels 6

	kg/m ² /year	
DER accounting for SAP Section 16 allowances	13.83	(ZC1)
CO2 emissions from appliances, equation (L14)	17.34	(ZC2)
CO2 emissions from cooking, equation (L16)	3.14	(ZC3)
Net CO2 emissions	34.3	(ZC8)

Result:

Credits awarded for Ene 1 = 5.7

Code Level = 4

Ene 2 - Fabric energy Efficiency

Fabric energy Efficiency: 40.09

Credits awarded for Ene 2 = 6.5

Ene 7 - Low or Zero Carbon (LZC) Technologies

Reduction in CO2 Emissions

	%	kg/m ² /year	
Standard Case CO2 emissions		40	
*Actual Case CO2 emissions		34.3	
Reduction in CO2 emissions	14.25		

Credits awarded for Ene 7 = 1

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Buiding regulation assessment

TER **kg/m²/year** 30.49
 DER 13.73

The following code calculations are taken from the Code for Sustainable Homes Technical Guide (Nov 10)

Ene 1 Assessment - Dwelling Emission Rate

Total Energy Type CO2 Emissions for Codes Levels 1 - 5

	%	kg/m ² /year	
DER from SAP 2009 DER Worksheet		13.73	(ZC1)
TER		30.49	
Residual CO2 emissions offset from biofuel CHP		0	(ZC5)
CO2 emissions offset from additional allowable electricity generation		0	(ZC7)
Total CO2 emissions offset from SAP Section 16 allowances		0	
DER accounting for SAP Section 16 allowances		13.73	
% improvement DER/TER	54.98		

Total Energy Type CO2 Emissions for Codes Levels 6

	kg/m ² /year	
DER accounting for SAP Section 16 allowances	13.73	(ZC1)
CO2 emissions from appliances, equation (L14)	16.31	(ZC2)
CO2 emissions from cooking, equation (L16)	2.28	(ZC3)
Net CO2 emissions	32.3	(ZC8)

Result:

Credits awarded for Ene 1 = 5.7

Code Level = 4

Ene 2 - Fabric energy Efficiency

Fabric energy Efficiency: 47.25

Credits awarded for Ene 2 = 3.3

Ene 7 - Low or Zero Carbon (LZC) Technologies

Reduction in CO2 Emissions

	%	kg/m ² /year	
Standard Case CO2 emissions		36.7	
*Actual Case CO2 emissions		32.3	
Reduction in CO2 emissions	11.99		

Credits awarded for Ene 7 = 1

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Buiding regulation assessment

TER 29.71 kg/m²/year
 DER 13.2

The following code calculations are taken from the Code for Sustainable Homes Technical Guide (Nov 10)

Ene 1 Assessment - Dwelling Emission Rate

Total Energy Type CO2 Emissions for Codes Levels 1 - 5

	%	kg/m ² /year	
DER from SAP 2009 DER Worksheet		13.2	(ZC1)
TER		29.71	
Residual CO2 emissions offset from biofuel CHP		0	(ZC5)
CO2 emissions offset from additional allowable electricity generation		0	(ZC7)
Total CO2 emissions offset from SAP Section 16 allowances		0	
DER accounting for SAP Section 16 allowances		13.2	
% improvement DER/TER	55.57		

Total Energy Type CO2 Emissions for Codes Levels 6

	kg/m ² /year	
DER accounting for SAP Section 16 allowances	13.2	(ZC1)
CO2 emissions from appliances, equation (L14)	17.34	(ZC2)
CO2 emissions from cooking, equation (L16)	3.14	(ZC3)
Net CO2 emissions	33.7	(ZC8)

Result:

Credits awarded for Ene 1 = 5.7

Code Level = 4

Ene 2 - Fabric energy Efficiency

Fabric energy Efficiency: 36.35

Credits awarded for Ene 2 = 7.7

Ene 7 - Low or Zero Carbon (LZC) Technologies

Reduction in CO2 Emissions

	%	kg/m ² /year	
Standard Case CO2 emissions		39.4	
*Actual Case CO2 emissions		33.7	
Reduction in CO2 emissions	14.47		

Credits awarded for Ene 7 = 1

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TER **kg/m²/year** 26.73
 DER 11.96

The following code calculations are taken from the Code for Sustainable Homes Technical Guide (Nov 10)

Ene 1 Assessment - Dwelling Emission Rate

Total Energy Type CO2 Emissions for Codes Levels 1 - 5

	%	kg/m ² /year	
DER from SAP 2009 DER Worksheet		11.96	(ZC1)
TER		26.73	
Residual CO2 emissions offset from biofuel CHP		0	(ZC5)
CO2 emissions offset from additional allowable electricity generation		0	(ZC7)
Total CO2 emissions offset from SAP Section 16 allowances		0	
DER accounting for SAP Section 16 allowances		11.96	
% improvement DER/TER	55.24		

Total Energy Type CO2 Emissions for Codes Levels 6

	kg/m ² /year	
DER accounting for SAP Section 16 allowances	11.96	(ZC1)
CO2 emissions from appliances, equation (L14)	16.31	(ZC2)
CO2 emissions from cooking, equation (L16)	2.28	(ZC3)
Net CO2 emissions	30.6	(ZC8)

Result:

Credits awarded for Ene 1 = 5.7

Code Level = 4

Ene 2 - Fabric energy Efficiency

Fabric energy Efficiency: 37.18

Credits awarded for Ene 2 = 7.5

Ene 7 - Low or Zero Carbon (LZC) Technologies

Reduction in CO2 Emissions

	%	kg/m ² /year	
Standard Case CO2 emissions		34.7	
*Actual Case CO2 emissions		30.6	
Reduction in CO2 emissions	11.82		

Credits awarded for Ene 7 = 1

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TER **kg/m²/year** 28.52
 DER 13.13

The following code calculations are taken from the Code for Sustainable Homes Technical Guide (Nov 10)

Ene 1 Assessment - Dwelling Emission Rate

Total Energy Type CO2 Emissions for Codes Levels 1 - 5

	%	kg/m ² /year	
DER from SAP 2009 DER Worksheet		13.13	(ZC1)
TER		28.52	
Residual CO2 emissions offset from biofuel CHP		0	(ZC5)
CO2 emissions offset from additional allowable electricity generation		0	(ZC7)
Total CO2 emissions offset from SAP Section 16 allowances		0	
DER accounting for SAP Section 16 allowances		13.13	
% improvement DER/TER	53.98		

Total Energy Type CO2 Emissions for Codes Levels 6

	kg/m ² /year	
DER accounting for SAP Section 16 allowances	13.13	(ZC1)
CO2 emissions from appliances, equation (L14)	13.12	(ZC2)
CO2 emissions from cooking, equation (L16)	1.36	(ZC3)
Net CO2 emissions	27.6	(ZC8)

Result:

Credits awarded for Ene 1 = 5.6

Code Level = 4

Ene 2 - Fabric energy Efficiency

Fabric energy Efficiency: 56.35

Credits awarded for Ene 2 = 0

Ene 7 - Low or Zero Carbon (LZC) Technologies

Reduction in CO2 Emissions

	%	kg/m ² /year	
Standard Case CO2 emissions		31.6	
*Actual Case CO2 emissions		27.6	
Reduction in CO2 emissions	12.66		

Credits awarded for Ene 7 = 1