

GWPArchitecture

P01 | 03.06.21

Carbon Reduction Summary - Windermere Close - As-built

With reference to the below SAP calculation Regulations Compliance Reports completed by SAP Assessors WECE (Daniel Watt (STRO026464)).

See below summary of carbon reductions, with an average reduction of 52% achieved across the scheme - thus demonstrating compliance with policies SP1, T1, T2, EN4, EN8 and DM1 of the Core Strategy for the City of Manchester and the principles contained within The Guide to Development in Manchester SPD (2007) and the National Planning Policy Framework.

	TER (Kg/m2)	DER (Kg/m2)	% Reduction
Windermere Block A Plot 1	32.41	15.32	-0.53%
Windermere Block A Plot 2	30.84	15.09	-0.51%
Windermere Block A Plot 3	31.95	15.07	-0.53%
Windermere Block B Plot 4	31.95	15.02	-0.53%
Windermere Block B Plot 5	31.88	14.79	-0.54%
Windermere Block B Plot 6	30.84	15.04	-0.51%
<u>Windermere Average</u>			-0.52%

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.41

Printed on 02 June 2021 at 09:35:42

Project Information:

Assessed By: Daniel Watt (STRO026464)

Building Type: End-terrace Bungalow

Dwelling Details:

NEW DWELLING AS BUILT

Total Floor Area: 61m²

Site Reference : Windermere Block A

Plot Reference: Plot 1 Block A

Address : 1 WINDERMERE CLOSE, MANCHESTER, M11 2PH

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Electricity

Fuel factor: 1.55 (electricity)

Target Carbon Dioxide Emission Rate (TER)

32.41 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.32 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

65.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.9 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.14 (max. 0.30)	0.14 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.10 (max. 0.25)	0.10 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	0.80 (max. 2.00)	0.80 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

0.97

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Room heaters - electric

Panel, convector or radiant heaters

Main Heating system 2:

Heat pumps with radiators or underfloor heating - electric

Dimplex EDL200UK-630

Secondary heating system:

None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage:	Measured cylinder loss: 1.61 kWh/day	OK
	Permitted by DBSCG: 2.24 kWh/day	
Primary pipework insulated:	No primary pipework	N/A

6 Controls

Space heating controls	Programmer and appliance thermostats	OK
Space heating controls 2:	Not applicable (boiler provides DHW only)	OK
Hot water controls:	No cylinder thermostat	Fail

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.87	
Maximum	1.5	OK
MVHR efficiency:	89%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (North West England):	Not significant	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: West	6.41m ²	
Windows facing: East	8.1m ²	
Windows facing: North	0.99m ²	
Ventilation rate:	6.00	
Blinds/curtains:	Dark-coloured curtain or roller blind	
	Closed 100% of daylight hours	

10 Key features

Thermal bridging	0.023 W/m ² K
Air permeability	1.0 m ³ /m ² h
Windows U-value	0.8 W/m ² K
Roofs U-value	0.11 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.1 W/m ² K

Energy performance certificate (EPC)

3 WINDERMERE CLOSE
MANCHESTER
M11 2PH

Energy rating

B

Valid until

1 June 2031

Certificate number

0320-0009-8306-4269-5214

Property type

Mid-terrace bungalow

Total floor area

61 square metres

Rules on letting this property

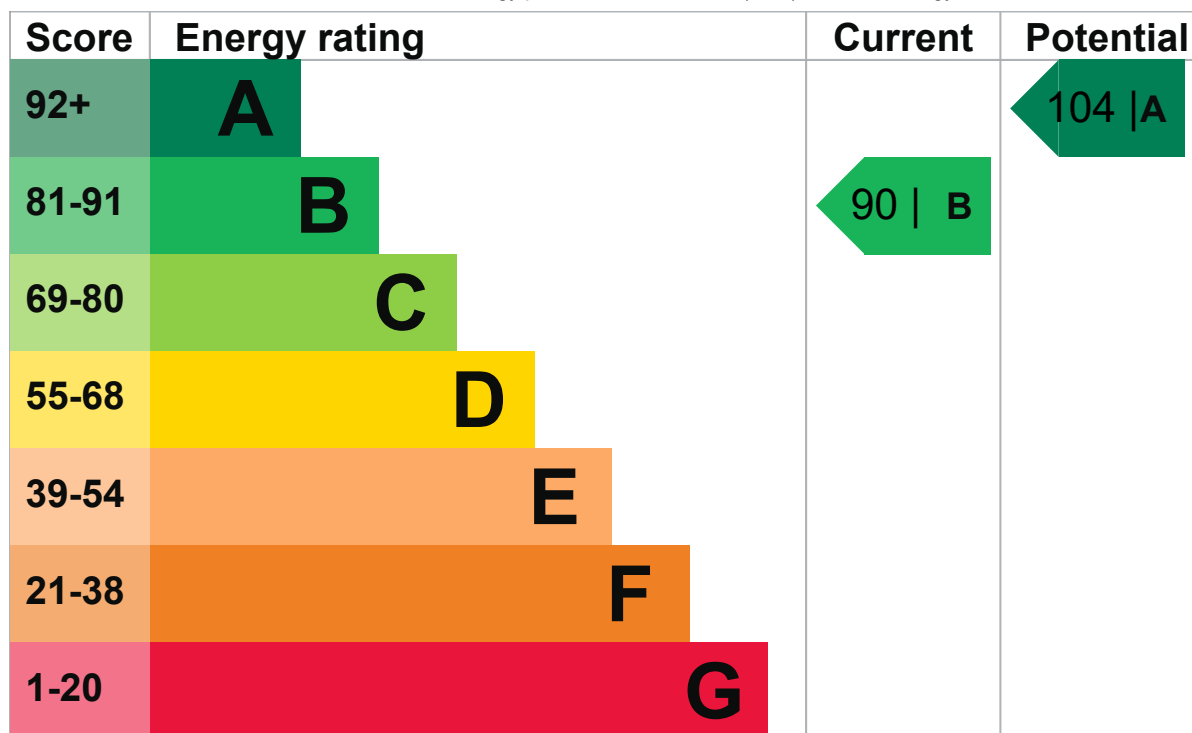
Properties can be rented if they have an energy rating from A to E.

If the property is rated F or G, it cannot be let, unless an exemption has been registered. You can read [guidance for landlords on the regulations and exemptions \(https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance\)](https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance).

Energy efficiency rating for this property

This property's current energy rating is B. It has the potential to be A.

[See how to improve this property's energy performance.](#)



The graph shows this property's current and potential energy efficiency.

Properties are given a rating from A (most efficient) to G (least efficient).

Properties are also given a score. The higher the number the lower your fuel bills are likely to be.

For properties in England and Wales:

- the average energy rating is D
- the average energy score is 60

Breakdown of property's energy performance

This section shows the energy performance for features of this property. The assessment does not consider the condition of a feature and how well it is working.

Each feature is assessed as one of the following:

- very good (most efficient)
- good
- average
- poor
- very poor (least efficient)

When the description says "assumed", it means that the feature could not be inspected and an assumption has been made based on the property's age and type.

Feature	Description	Rating
Walls	Average thermal transmittance 0.14 W/m²K	Very good
Roof	Average thermal transmittance 0.11 W/m²K	Very good
Floor	Average thermal transmittance 0.10 W/m²K	Very good

Feature	Description	Rating
Windows	High performance glazing	Very good
Main heating	Room heaters, electric	Very poor
Main heating control	Programmer and appliance thermostats	Good
Hot water	From main system	Very good
Lighting	Low energy lighting in all fixed outlets	Very good
Air tightness	Air permeability 1.0 m ³ /h.m ² (as tested)	Very good
Secondary heating	None	N/A

Primary energy use

The primary energy use for this property per year is 68 kilowatt hours per square metre (kWh/m²).

► [What is primary energy use?](#)

Environmental impact of this property

One of the biggest contributors to climate change is carbon dioxide (CO₂). The energy used for heating, lighting and power in our homes produces over a quarter of the UK's CO₂ emissions.

An average household produces

6 tonnes of CO₂

This property produces

0.7 tonnes of CO₂

This property's potential production

-0.2 tonnes of CO₂

By making the [recommended changes](#), you could reduce this property's CO₂ emissions by 0.9 tonnes per year. This will help to protect the environment.

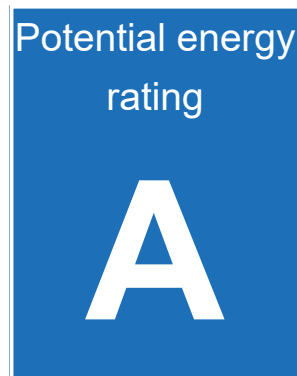
Environmental impact ratings are based on assumptions about average occupancy and energy use. They may not reflect how energy is consumed by the people living at the property.

How to improve this property's energy performance

Making any of the recommended changes will improve this property's energy efficiency.

If you make all of the recommended changes, this will improve the property's energy rating and score from B (90) to A (104).

► [What is an energy rating?](#)



Recommendation 1: Solar water heating

Solar water heating

Typical installation cost

£4,000 - £6,000

Typical yearly saving

£36

Potential rating after carrying out recommendation 1

91 | B

Recommendation 2: Solar photovoltaic panels, 2.5 kWp

Solar photovoltaic panels

Typical installation cost

£3,500 - £5,500

Typical yearly saving

£306

Potential rating after carrying out recommendations 1 and 2

104 | A

Paying for energy improvements

[Find energy grants and ways to save energy in your home. \(https://www.gov.uk/improve-energy-efficiency\)](https://www.gov.uk/improve-energy-efficiency)

Estimated energy use and potential savings

Estimated yearly energy cost for this property

£257

Potential saving

£36

The estimated cost shows how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

The estimated saving is based on making all of the recommendations in [how to improve this property's energy performance](#).

For advice on how to reduce your energy bills visit [Simple Energy Advice \(https://www.simpleenergyadvice.org.uk/\)](https://www.simpleenergyadvice.org.uk/).

Heating use in this property

Heating a property usually makes up the majority of energy costs.

Estimated energy used to heat this property

Space heating

412 kWh per year

Water heating

1606 kWh per year

Potential energy savings by installing insulation

The assessor did not find any opportunities to save energy by installing insulation in this property.

You might be able to receive [Renewable Heat Incentive payments \(https://www.gov.uk/domestic-renewable-heat-incentive\)](https://www.gov.uk/domestic-renewable-heat-incentive). This will help to reduce carbon emissions by replacing your existing heating system with one that generates renewable heat. The estimated energy required for space and water heating will form the basis of the payments.

Contacting the assessor and accreditation scheme

This EPC was created by a qualified energy assessor.

If you are unhappy about your property's energy assessment or certificate, you can complain to the assessor directly.

If you are still unhappy after contacting the assessor, you should contact the assessor's accreditation scheme.

Accreditation schemes are appointed by the government to ensure that assessors are qualified to carry out EPC assessments.

Assessor contact details

Assessor's name

Daniel Watt

Telephone

01614 343 103

Email

dan.w@wece.co.uk

Accreditation scheme contact details

Accreditation scheme

Stroma Certification Ltd

Assessor ID

STRO026464

Telephone

0330 124 9660

Email

certification@stroma.com

Assessment details

Assessor's declaration

Employed by the professional dealing with the property transaction

Date of assessment

2 June 2021

Date of certificate

2 June 2021

Type of assessment

► [SAP](#)

Other certificates for this property

If you are aware of previous certificates for this property and they are not listed here, please contact us at mhclg.digital-services@communities.gov.uk or call our helpdesk on 020 3829 0748.

There are no related certificates for this property.

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.41

Printed on 02 June 2021 at 09:35:42

Project Information:

Assessed By: Daniel Watt (STRO026464)

Building Type: End-terrace Bungalow

Dwelling Details:

NEW DWELLING AS BUILT

Total Floor Area: 61m²

Site Reference : Windermere Block A

Plot Reference: Plot 3 Block A

Address : 5 WINDERMERE CLOSE, MANCHESTER, M11 2PH

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Electricity

Fuel factor: 1.55 (electricity)

Target Carbon Dioxide Emission Rate (TER)

31.95 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.07 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

63.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.4 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.14 (max. 0.30)	0.14 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.10 (max. 0.25)	0.10 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	0.80 (max. 2.00)	0.80 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

0.97

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Room heaters - electric

Panel, convector or radiant heaters

Main Heating system 2:

Heat pumps with radiators or underfloor heating - electric

Dimplex EDL200UK-630

Secondary heating system:

None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage:	Measured cylinder loss: 1.61 kWh/day	OK
	Permitted by DBSCG: 2.24 kWh/day	
Primary pipework insulated:	No primary pipework	N/A

6 Controls

Space heating controls	Programmer and appliance thermostats	OK
Space heating controls 2:	Not applicable (boiler provides DHW only)	OK
Hot water controls:	No cylinder thermostat	Fail

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.87	
Maximum	1.5	OK
MVHR efficiency:	89%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (North West England):	Not significant	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: West	6.41m ²	
Windows facing: East	8.1m ²	
Ventilation rate:	3.00	
Blinds/curtains:	Dark-coloured curtain or roller blind	
	Closed 100% of daylight hours	

10 Key features

Thermal bridging	0.023 W/m ² K
Air permeability	1.0 m ³ /m ² h
Windows U-value	0.8 W/m ² K
Roofs U-value	0.11 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.1 W/m ² K

Energy performance certificate (EPC)

5 WINDERMERE CLOSE
MANCHESTER
M11 2PH

Energy rating

B

Valid until

1 June 2031

Certificate number

0041-3062-8060-2509-5985

Property type

End-terrace bungalow

Total floor area

61 square metres

Rules on letting this property

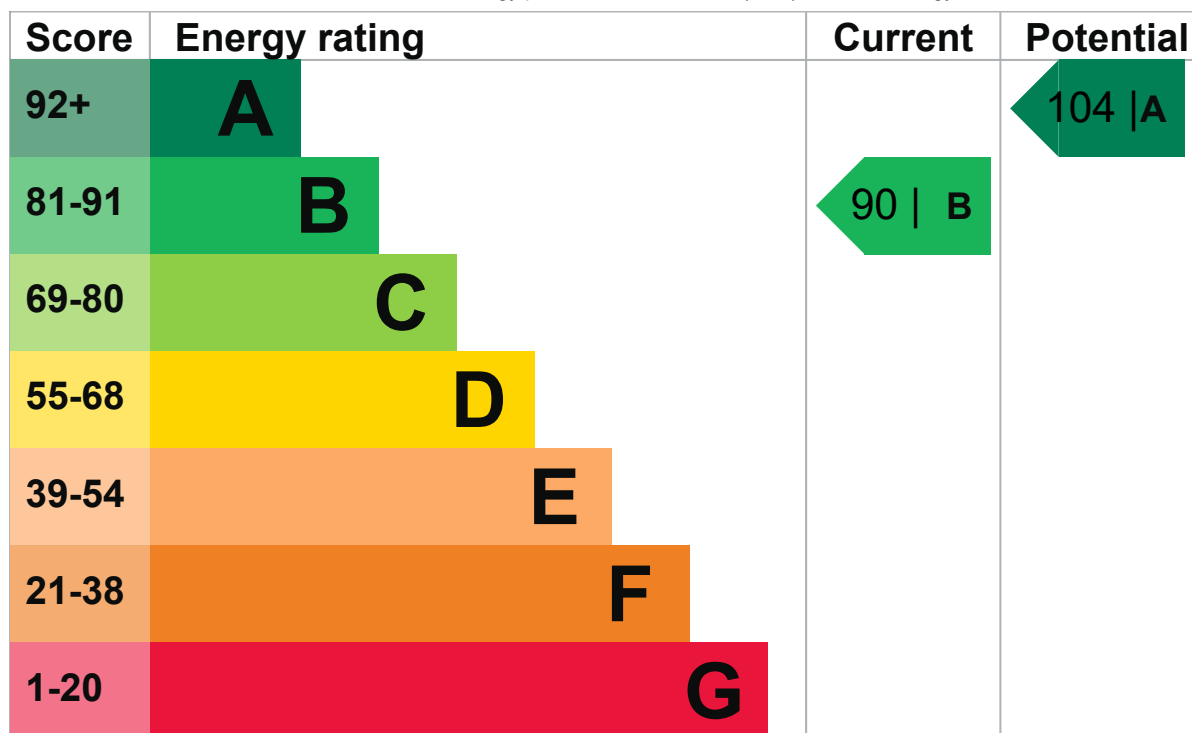
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Energy efficiency rating for this property

This property's current energy rating is B. It has the potential to be A.

[See how to improve this property's energy performance.](#)



The graph shows this property's current and potential energy efficiency.

Properties are given a rating from A (most efficient) to G (least efficient).

Properties are also given a score. The higher the number the lower your fuel bills are likely to be.

For properties in England and Wales:

- the average energy rating is D
- the average energy score is 60

Breakdown of property's energy performance

This section shows the energy performance for features of this property. The assessment does not consider the condition of a feature and how well it is working.

Each feature is assessed as one of the following:

- very good (most efficient)
- good
- average
- poor
- very poor (least efficient)

When the description says "assumed", it means that the feature could not be inspected and an assumption has been made based on the property's age and type.

Feature	Description	Rating
Walls	Average thermal transmittance 0.14 W/m²K	Very good
Roof	Average thermal transmittance 0.11 W/m²K	Very good
Floor	Average thermal transmittance 0.10 W/m²K	Very good

Feature	Description	Rating
Windows	High performance glazing	Very good
Main heating	Room heaters, electric	Very poor
Main heating control	Programmer and appliance thermostats	Good
Hot water	From main system	Very good
Lighting	Low energy lighting in all fixed outlets	Very good
Air tightness	Air permeability 1.0 m ³ /h.m ² (as tested)	Very good
Secondary heating	None	N/A

Primary energy use

The primary energy use for this property per year is 68 kilowatt hours per square metre (kWh/m²).

► [What is primary energy use?](#)

Environmental impact of this property

One of the biggest contributors to climate change is carbon dioxide (CO₂). The energy used for heating, lighting and power in our homes produces over a quarter of the UK's CO₂ emissions.

An average household produces

6 tonnes of CO₂

This property produces

0.7 tonnes of CO₂

This property's potential production

-0.2 tonnes of CO₂

By making the [recommended changes](#), you could reduce this property's CO₂ emissions by 0.9 tonnes per year. This will help to protect the environment.

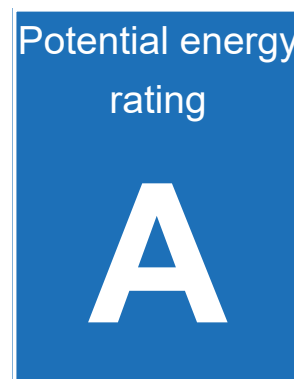
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How to improve this property's energy performance

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If you make all of the recommended changes, this will improve the property's energy rating and score from B (90) to A (104).

► [What is an energy rating?](#)



Recommendation 1: Solar water heating

Solar water heating

Typical installation cost

£4,000 - £6,000

Typical yearly saving

£36

Potential rating after carrying out recommendation 1

91 | B

Recommendation 2: Solar photovoltaic panels, 2.5 kWp

Solar photovoltaic panels

Typical installation cost

£3,500 - £5,500

Typical yearly saving

£306

Potential rating after carrying out recommendations 1 and 2

104 | A

Paying for energy improvements

[Find energy grants and ways to save energy in your home. \(https://www.gov.uk/improve-energy-efficiency\)](https://www.gov.uk/improve-energy-efficiency)

Estimated energy use and potential savings

Estimated yearly energy cost for this property

£256

Potential saving

£36

The estimated cost shows how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

The estimated saving is based on making all of the recommendations in [how to improve this property's energy performance](#).

For advice on how to reduce your energy bills visit [Simple Energy Advice \(https://www.simpleenergyadvice.org.uk/\)](https://www.simpleenergyadvice.org.uk/).

Heating use in this property

Heating a property usually makes up the majority of energy costs.

Estimated energy used to heat this property

Space heating

410 kWh per year

Water heating

1606 kWh per year

Potential energy savings by installing insulation

The assessor did not find any opportunities to save energy by installing insulation in this property.

You might be able to receive [Renewable Heat Incentive payments \(https://www.gov.uk/domestic-renewable-heat-incentive\)](https://www.gov.uk/domestic-renewable-heat-incentive). This will help to reduce carbon emissions by replacing your existing heating system with one that generates renewable heat. The estimated energy required for space and water heating will form the basis of the payments.

Contacting the assessor and accreditation scheme

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Assessor contact details

Assessor's name

Daniel Watt

Telephone

01614 343 103

Email

dan.w@wece.co.uk

Accreditation scheme contact details

Accreditation scheme

Stroma Certification Ltd

Assessor ID

STRO026464

Telephone

0330 124 9660

Email

certification@stroma.com

Assessment details

Assessor's declaration

Employed by the professional dealing with the property transaction

Date of assessment

2 June 2021

Date of certificate

2 June 2021

Type of assessment

► [SAP](#)

Other certificates for this property

If you are aware of previous certificates for this property and they are not listed here, please contact us at mhclg.digital-services@communities.gov.uk or call our helpdesk on 020 3829 0748.

There are no related certificates for this property.

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.41

Printed on 02 June 2021 at 09:35:41

Project Information:

Assessed By: Daniel Watt (STRO026464)

Building Type: End-terrace Bungalow

Dwelling Details:

NEW DWELLING AS BUILT

Total Floor Area: 61m²

Site Reference : Windermere Block A

Plot Reference: Plot 4 Block B

Address : 7 WINDERMERE CLOSE, MANCHESTER, M11 2PH

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Electricity

Fuel factor: 1.55 (electricity)

Target Carbon Dioxide Emission Rate (TER)

31.95 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.02 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

63.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.4 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.14 (max. 0.30)	0.14 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.10 (max. 0.25)	0.10 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	0.80 (max. 2.00)	0.80 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

0.93

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Room heaters - electric
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Dimplex EDL200UK-630

Secondary heating system:

None

Regulations Compliance Report

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Primary pipework insulated:	No primary pipework	N/A

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Space heating controls	Programmer and appliance thermostats	OK
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Hot water controls:	No cylinder thermostat	Fail

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.87	
Maximum	1.5	OK
MVHR efficiency:	89%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (North West England):	Not significant	OK
Based on:		
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Windows facing: West	6.41m ²	
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Ventilation rate:	3.00	
Blinds/curtains:	Dark-coloured curtain or roller blind	
	Closed 100% of daylight hours	

10 Key features

Thermal bridging	0.023 W/m ² K
Air permeability	0.9 m ³ /m ² h
Windows U-value	0.8 W/m ² K
Roofs U-value	0.11 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.1 W/m ² K

Energy performance certificate (EPC)

7 WINDERMERE CLOSE
MANCHESTER
M11 2PH

Energy rating

B

Valid until

1 June 2031

Certificate number

0909-8536-4000-1652-9206

Property type

End-terrace bungalow

Total floor area

61 square metres

Rules on letting this property

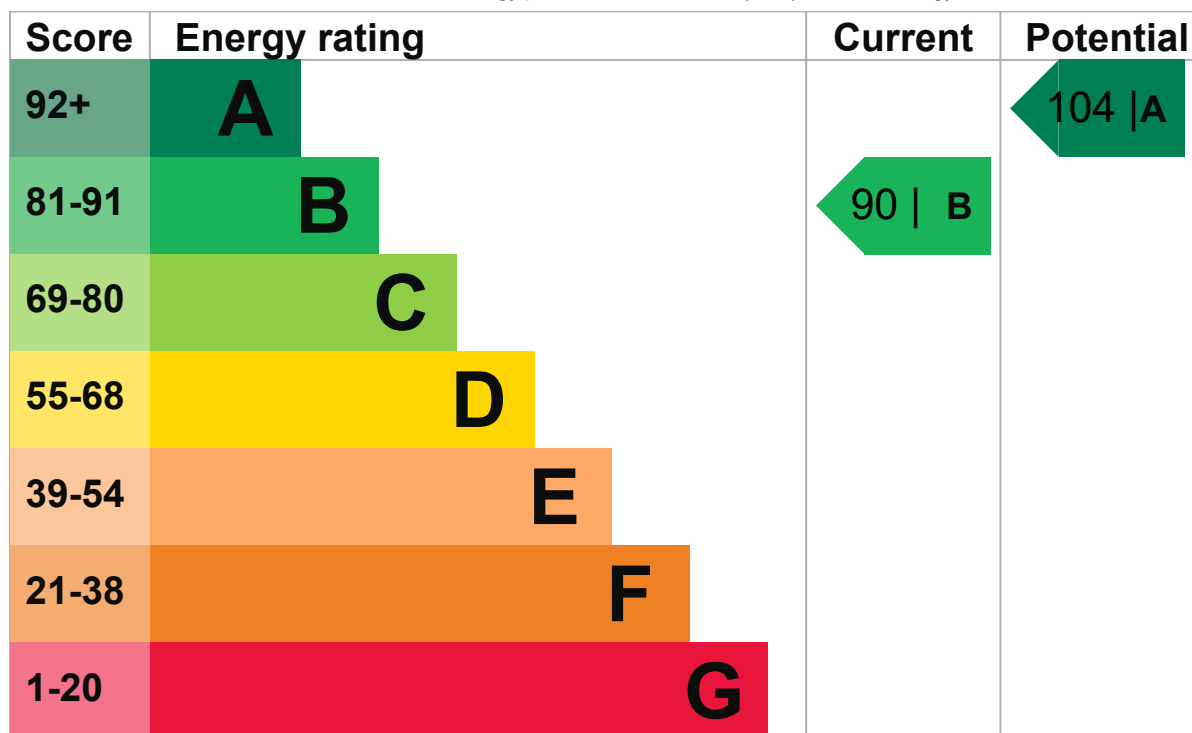
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Energy efficiency rating for this property

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Air tightness	Air permeability 0.9 m ³ /h.m ² (as tested)	Very good
Secondary heating	None	N/A

Primary energy use

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► [What is primary energy use?](#)

Environmental impact of this property

One of the biggest contributors to climate change is carbon dioxide (CO₂). The energy used for heating, lighting and power in our homes produces over a quarter of the UK's CO₂ emissions.

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This property produces

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This property's potential production

-0.2 tonnes of CO₂

By making the [recommended changes](#), you could reduce this property's CO₂ emissions by 0.9 tonnes per year. This will help to protect the environment.

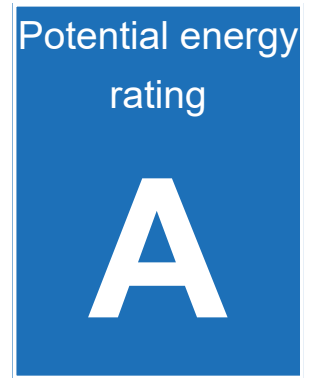
Environmental impact ratings are based on assumptions about average occupancy and energy use. They may not reflect how energy is consumed by the people living at the property.

How to improve this property's energy performance

Making any of the recommended changes will improve this property's energy efficiency.

If you make all of the recommended changes, this will improve the property's energy rating and score from B (90) to A (104).

► [What is an energy rating?](#)



Recommendation 1: Solar water heating

Solar water heating

Typical installation cost

£4,000 - £6,000

Typical yearly saving

£36

Potential rating after carrying out recommendation 1

91 | B

Recommendation 2: Solar photovoltaic panels, 2.5 kWp

Solar photovoltaic panels

Typical installation cost

£3,500 - £5,500

Typical yearly saving

£306

Potential rating after carrying out recommendations 1 and 2

104 | A

Paying for energy improvements

[Find energy grants and ways to save energy in your home. \(https://www.gov.uk/improve-energy-efficiency\)](https://www.gov.uk/improve-energy-efficiency)

Estimated energy use and potential savings

Estimated yearly energy cost for this property

£256

Potential saving

£36

The estimated cost shows how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

The estimated saving is based on making all of the recommendations in [how to improve this property's energy performance](#).

For advice on how to reduce your energy bills visit [Simple Energy Advice \(https://www.simpleenergyadvice.org.uk/\)](https://www.simpleenergyadvice.org.uk/).

Heating use in this property

Heating a property usually makes up the majority of energy costs.

Estimated energy used to heat this property

Space heating

406 kWh per year

Water heating

1606 kWh per year

Potential energy savings by installing insulation

The assessor did not find any opportunities to save energy by installing insulation in this property.

You might be able to receive [Renewable Heat Incentive payments \(https://www.gov.uk/domestic-renewable-heat-incentive\)](https://www.gov.uk/domestic-renewable-heat-incentive). This will help to reduce carbon emissions by replacing your existing heating system with one that generates renewable heat. The estimated energy required for space and water heating will form the basis of the payments.

Contacting the assessor and accreditation scheme

This EPC was created by a qualified energy assessor.

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Accreditation schemes are appointed by the government to ensure that assessors are qualified to carry out EPC assessments.

Assessor contact details

Assessor's name

Daniel Watt

Telephone

01614 343 103

Email

dan.w@wece.co.uk

Accreditation scheme contact details

Accreditation scheme

Stroma Certification Ltd

Assessor ID

STRO026464

Telephone

0330 124 9660

Email

certification@stroma.com

Assessment details

Assessor's declaration

Employed by the professional dealing with the property transaction

Date of assessment

2 June 2021

Date of certificate

2 June 2021

Type of assessment

► [SAP](#)

Other certificates for this property

If you are aware of previous certificates for this property and they are not listed here, please contact us at mhclg.digital-services@communities.gov.uk or call our helpdesk on 020 3829 0748.

There are no related certificates for this property.

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.41

Printed on 02 June 2021 at 09:35:41

Project Information:

Assessed By: Daniel Watt (STRO026464)

Building Type: Mid-terrace Bungalow

Dwelling Details:

NEW DWELLING AS BUILT

Total Floor Area: 61m²

Site Reference : Windermere Block A

Plot Reference: Plot 5 Block B

Address : 9 WINDERMERE CLOSE, MANCHESTER, M11 2PH

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Electricity

Fuel factor: 1.55 (electricity)

Target Carbon Dioxide Emission Rate (TER)

30.84 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.04 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

60.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.4 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.14 (max. 0.30)	0.14 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.10 (max. 0.25)	0.10 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	0.80 (max. 2.00)	0.80 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

0.93

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Room heaters - electric
Panel, convector or radiant heaters

Main Heating system 2:

Heat pumps with radiators or underfloor heating - electric
Dimplex EDL200UK-630

Secondary heating system:

None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage:	Measured cylinder loss: 1.61 kWh/day	OK
	Permitted by DBSCG: 2.24 kWh/day	
Primary pipework insulated:	No primary pipework	N/A

6 Controls

Space heating controls	Programmer and appliance thermostats	OK
Space heating controls 2:	Not applicable (boiler provides DHW only)	OK
Hot water controls:	No cylinder thermostat	Fail

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.87	
Maximum	1.5	OK
MVHR efficiency:	89%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (North West England):	Not significant	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: West	6.41m ²	
Windows facing: East	8.1m ²	
Ventilation rate:	3.00	
Blinds/curtains:	Dark-coloured curtain or roller blind	
	Closed 100% of daylight hours	

10 Key features

Thermal bridging	0.04 W/m ² K
Air permeability	0.9 m ³ /m ² h
Windows U-value	0.8 W/m ² K
Roofs U-value	0.11 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.1 W/m ² K

Energy performance certificate (EPC)

9 WINDERMERE CLOSE
MANCHESTER
M11 2PH

Energy rating

B

Valid until

1 June 2031

Certificate number

0620-0009-8306-4969-5210

Property type

Mid-terrace bungalow

Total floor area

61 square metres

Rules on letting this property

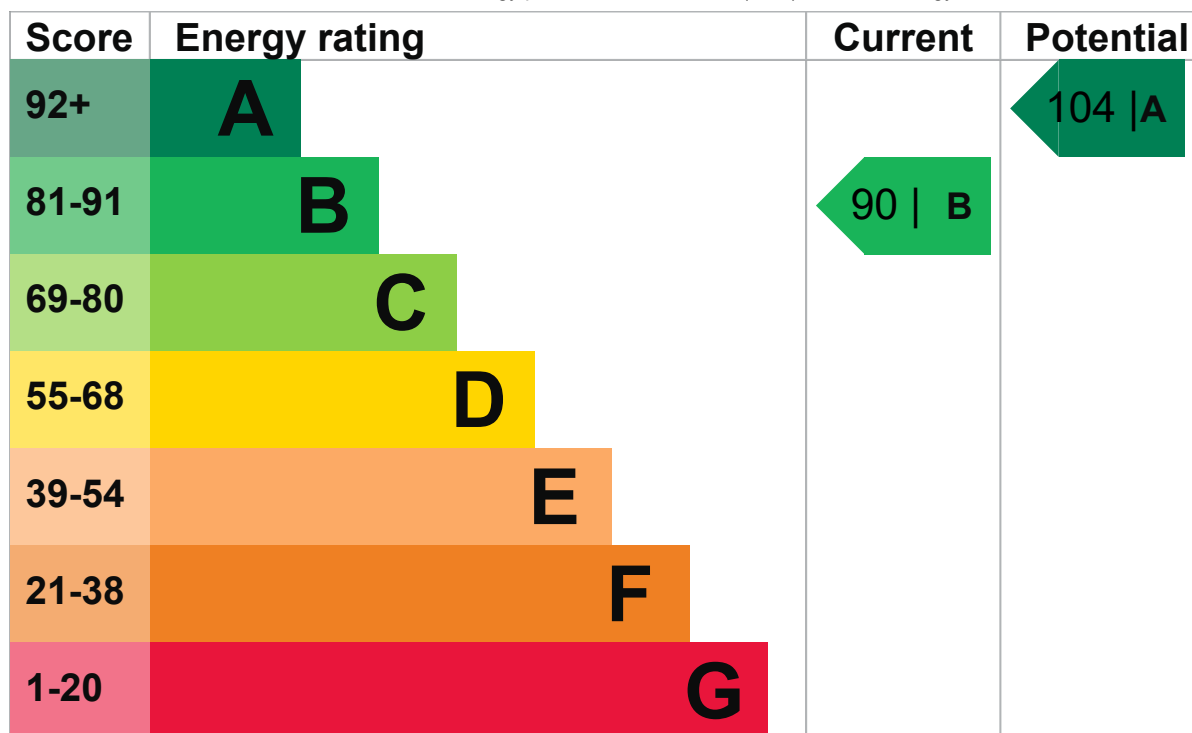
Properties can be rented if they have an energy rating from A to E.

If the property is rated F or G, it cannot be let, unless an exemption has been registered. You can read [guidance for landlords on the regulations and exemptions \(https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance\)](https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance).

Energy efficiency rating for this property

This property's current energy rating is B. It has the potential to be A.

[See how to improve this property's energy performance.](#)



The graph shows this property's current and potential energy efficiency.

Properties are given a rating from A (most efficient) to G (least efficient).

Properties are also given a score. The higher the number the lower your fuel bills are likely to be.

For properties in England and Wales:

- the average energy rating is D
- the average energy score is 60

Breakdown of property's energy performance

This section shows the energy performance for features of this property. The assessment does not consider the condition of a feature and how well it is working.

Each feature is assessed as one of the following:

- very good (most efficient)
- good
- average
- poor
- very poor (least efficient)

When the description says "assumed", it means that the feature could not be inspected and an assumption has been made based on the property's age and type.

Feature	Description	Rating
Walls	Average thermal transmittance 0.14 W/m²K	Very good
Roof	Average thermal transmittance 0.11 W/m²K	Very good
Floor	Average thermal transmittance 0.10 W/m²K	Very good

Feature	Description	Rating
Windows	High performance glazing	Very good
Main heating	Room heaters, electric	Very poor
Main heating control	Programmer and appliance thermostats	Good
Hot water	From main system	Very good
Lighting	Low energy lighting in all fixed outlets	Very good
Air tightness	Air permeability 0.9 m ³ /h.m ² (as tested)	Very good
Secondary heating	None	N/A

Primary energy use

The primary energy use for this property per year is 68 kilowatt hours per square metre (kWh/m²).

► [What is primary energy use?](#)

Environmental impact of this property

One of the biggest contributors to climate change is carbon dioxide (CO₂). The energy used for heating, lighting and power in our homes produces over a quarter of the UK's CO₂ emissions.

An average household produces

6 tonnes of CO₂

This property produces

0.7 tonnes of CO₂

This property's potential production

-0.2 tonnes of CO₂

By making the [recommended changes](#), you could reduce this property's CO₂ emissions by 0.9 tonnes per year. This will help to protect the environment.

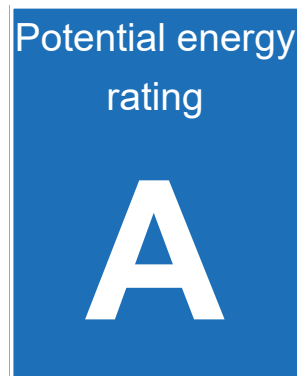
Environmental impact ratings are based on assumptions about average occupancy and energy use. They may not reflect how energy is consumed by the people living at the property.

How to improve this property's energy performance

Making any of the recommended changes will improve this property's energy efficiency.

If you make all of the recommended changes, this will improve the property's energy rating and score from B (90) to A (104).

► [What is an energy rating?](#)



Recommendation 1: Solar water heating

Solar water heating

Typical installation cost

£4,000 - £6,000

Typical yearly saving

£36

Potential rating after carrying out recommendation 1

91 | B

Recommendation 2: Solar photovoltaic panels, 2.5 kWp

Solar photovoltaic panels

Typical installation cost

£3,500 - £5,500

Typical yearly saving

£306

Potential rating after carrying out recommendations 1 and 2

104 | A

Paying for energy improvements

[Find energy grants and ways to save energy in your home. \(https://www.gov.uk/improve-energy-efficiency\)](https://www.gov.uk/improve-energy-efficiency)

Estimated energy use and potential savings

Estimated yearly energy cost for this property

£256

Potential saving

£36

The estimated cost shows how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

The estimated saving is based on making all of the recommendations in [how to improve this property's energy performance](#).

For advice on how to reduce your energy bills visit [Simple Energy Advice \(https://www.simpleenergyadvice.org.uk/\)](https://www.simpleenergyadvice.org.uk/).

Heating use in this property

Heating a property usually makes up the majority of energy costs.

Estimated energy used to heat this property

Space heating

408 kWh per year

Water heating

1606 kWh per year

Potential energy savings by installing insulation

The assessor did not find any opportunities to save energy by installing insulation in this property.

You might be able to receive [Renewable Heat Incentive payments \(https://www.gov.uk/domestic-renewable-heat-incentive\)](https://www.gov.uk/domestic-renewable-heat-incentive). This will help to reduce carbon emissions by replacing your existing heating system with one that generates renewable heat. The estimated energy required for space and water heating will form the basis of the payments.

Contacting the assessor and accreditation scheme

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Assessor's name

Daniel Watt

Telephone

01614 343 103

Email

dan.w@wece.co.uk

Accreditation scheme contact details

Accreditation scheme

Stroma Certification Ltd

Assessor ID

STRO026464

Telephone

0330 124 9660

Email

certification@stroma.com

Assessment details

Assessor's declaration

Employed by the professional dealing with the property transaction

Date of assessment

2 June 2021

Date of certificate

2 June 2021

Type of assessment

► [SAP](#)

Other certificates for this property

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There are no related certificates for this property.

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.41
Printed on 02 June 2021 at 09:35:41

Project Information:

Assessed By: Daniel Watt (STRO026464)

Building Type: End-terrace Bungalow

Dwelling Details:

NEW DWELLING AS BUILT

Total Floor Area: 61m²

Site Reference : Windermere Block A

Plot Reference: Plot 6 Block B

Address : 11 WINDERMERE CLOSE, MANCHESTER, M11 2PH

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Electricity

Fuel factor: 1.55 (electricity)

Target Carbon Dioxide Emission Rate (TER)

31.88 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.79 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

63.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

34.9 kWh/m²

OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.14 (max. 0.30)	0.14 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.10 (max. 0.25)	0.10 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	0.80 (max. 2.00)	0.80 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

0.93

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Room heaters - electric
Panel, convector or radiant heaters

Main Heating system 2:

Heat pumps with radiators or underfloor heating - electric
Dimplex EDL200UK-630

Secondary heating system:

None

Regulations Compliance Report

5 Cylinder insulation

Hot water Storage:	Measured cylinder loss: 1.61 kWh/day	OK
	Permitted by DBSCG: 2.24 kWh/day	
Primary pipework insulated:	No primary pipework	N/A

6 Controls

Space heating controls	Programmer and appliance thermostats	OK
Space heating controls 2:	Not applicable (boiler provides DHW only)	OK
Hot water controls:	No cylinder thermostat	Fail

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.87	
Maximum	1.5	OK
MVHR efficiency:	89%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (North West England):	Not significant	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: West	6.41m ²	
Windows facing: East	8.1m ²	
Windows facing: South	0.99m ²	
Ventilation rate:	3.00	
Blinds/curtains:	Dark-coloured curtain or roller blind	
	Closed 100% of daylight hours	

10 Key features

Thermal bridging	0.023 W/m ² K
Air permeability	0.9 m ³ /m ² h
Windows U-value	0.8 W/m ² K
Roofs U-value	0.11 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.1 W/m ² K

Energy performance certificate (EPC)

11 WINDERMERE CLOSE
MANCHESTER
M11 2PH

Energy rating

B

Valid until

1 June 2031

Certificate number

0509-8536-4000-1622-9206

Property type

End-terrace bungalow

Total floor area

61 square metres

Rules on letting this property

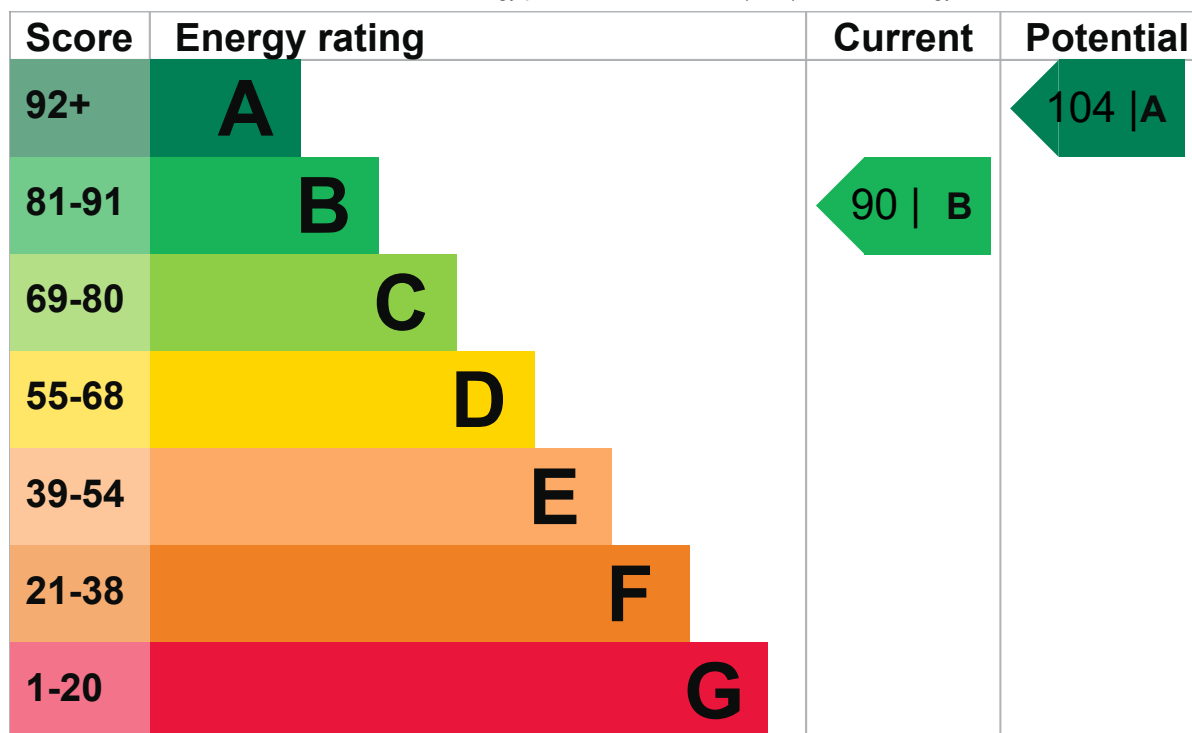
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Energy efficiency rating for this property

This property's current energy rating is B. It has the potential to be A.

[See how to improve this property's energy performance.](#)



The graph shows this property's current and potential energy efficiency.

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- the average energy rating is D
- the average energy score is 60

Breakdown of property's energy performance

This section shows the energy performance for features of this property. The assessment does not consider the condition of a feature and how well it is working.

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- good
- average
- poor
- very poor (least efficient)

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Feature	Description	Rating
Walls	Average thermal transmittance 0.14 W/m²K	Very good
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Feature	Description	Rating
Windows	High performance glazing	Very good
Main heating	Room heaters, electric	Very poor
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Hot water	From main system	Very good
Lighting	Low energy lighting in all fixed outlets	Very good
Air tightness	Air permeability 0.9 m ³ /h.m ² (as tested)	Very good
Secondary heating	None	N/A

Primary energy use

The primary energy use for this property per year is 68 kilowatt hours per square metre (kWh/m²).

► [What is primary energy use?](#)

Environmental impact of this property

One of the biggest contributors to climate change is carbon dioxide (CO₂). The energy used for heating, lighting and power in our homes produces over a quarter of the UK's CO₂ emissions.

An average household produces

6 tonnes of CO₂

This property produces

0.7 tonnes of CO₂

This property's potential production

-0.2 tonnes of CO₂

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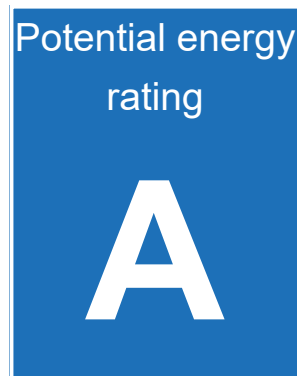
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Making any of the recommended changes will improve this property's energy efficiency.

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► [What is an energy rating?](#)



Recommendation 1: Solar water heating

Solar water heating

Typical installation cost

£4,000 - £6,000

Typical yearly saving

£36

Potential rating after carrying out recommendation 1

91 | B

Recommendation 2: Solar photovoltaic panels, 2.5 kWp

Solar photovoltaic panels

Typical installation cost

£3,500 - £5,500

Typical yearly saving

£306

Potential rating after carrying out recommendations 1 and 2

104 | A

Paying for energy improvements

[Find energy grants and ways to save energy in your home. \(https://www.gov.uk/improve-energy-efficiency\)](https://www.gov.uk/improve-energy-efficiency)

Estimated energy use and potential savings

Estimated yearly energy cost for this property

£254

Potential saving

£36

The estimated cost shows how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

The estimated saving is based on making all of the recommendations in [how to improve this property's energy performance](#).

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Heating use in this property

Heating a property usually makes up the majority of energy costs.

Estimated energy used to heat this property

Space heating

400 kWh per year

Water heating

1606 kWh per year

Potential energy savings by installing insulation

The assessor did not find any opportunities to save energy by installing insulation in this property.

You might be able to receive [Renewable Heat Incentive payments \(https://www.gov.uk/domestic-renewable-heat-incentive\)](https://www.gov.uk/domestic-renewable-heat-incentive). This will help to reduce carbon emissions by replacing your existing heating system with one that generates renewable heat. The estimated energy required for space and water heating will form the basis of the payments.

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Daniel Watt

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dan.w@wece.co.uk

Accreditation scheme contact details

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certification@stroma.com

Assessment details

Assessor's declaration

Employed by the professional dealing with the property transaction

Date of assessment

2 June 2021

Date of certificate

2 June 2021

Type of assessment

► [SAP](#)

Other certificates for this property

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There are no related certificates for this property.