

# Energy Performance Certificate



Flat A1,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8905-2967-5939-3826-8903  
Type of assessment: SAP, new dwelling  
Total floor area: 20 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>75</b>	<b>75</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	322 kWh/m <sup>2</sup> per year	322 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£13 per year	£13 per year
Heating	£97 per year	£97 per year
Hot water	£158 per year	£158 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A1,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8905-2967-5939-3826-8903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

C 75

Current environmental impact (CO<sub>2</sub>) rating

C 80

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A2,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 27 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2138-9000-6369-8300-0904  
Type of assessment: SAP, new dwelling  
Total floor area: 21 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>76</b>	<b>76</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>81</b>	<b>81</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	291 kWh/m <sup>2</sup> per year	291 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.9 tonnes per year	0.9 tonnes per year
Lighting	£14 per year	£14 per year
Heating	£84 per year	£84 per year
Hot water	£161 per year	£161 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A2,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2138-9000-6369-8300-0904

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

C 76

Current environmental impact (CO<sub>2</sub>) rating

B 81

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat A3,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 27 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2538-5099-6379-7090-9950  
Type of assessment: SAP, new dwelling  
Total floor area: 16 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>	(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC 			<b>England &amp; Wales</b> EU Directive 2002/91/EC 		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	412 kWh/m <sup>2</sup> per year	412 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£8 per year	£8 per year
Heating	£116 per year	£116 per year
Hot water	£150 per year	£150 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
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## About the impact of buildings on the environment

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## Recommended measures to improve this home's energy performance

Flat A3,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2538-5099-6379-7090-9950

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

C 72

Current environmental impact (CO<sub>2</sub>) rating

C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A4,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 27 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8650-6039-8220-7023-0922  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>71</b>	<b>71</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	376 kWh/m <sup>2</sup> per year	376 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.1 tonnes per year	1.1 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£131 per year	£131 per year
Hot water	£156 per year	£156 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A4,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8650-6039-8220-7023-0922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 71

Current environmental impact (CO<sub>2</sub>) rating C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat A5,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 27 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0584-3803-6390-9020-7041  
Type of assessment: SAP, new dwelling  
Total floor area: 24 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>			(69-80) <b>C</b>	<b>73</b>	<b>73</b>
(55-68) <b>D</b>	<b>62</b>	<b>62</b>	(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC 			<b>England &amp; Wales</b> EU Directive 2002/91/EC 		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	388 kWh/m <sup>2</sup> per year	388 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.4 tonnes per year	1.4 tonnes per year
Lighting	£13 per year	£13 per year
Heating	£213 per year	£213 per year
Hot water	£167 per year	£167 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A5,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0584-3803-6390-9020-7041

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

D 62

Current environmental impact (CO<sub>2</sub>) rating

C 73

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A6,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 27 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8770-6039-8230-8083-0926  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>66</b>	<b>66</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>75</b>	<b>75</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	411 kWh/m <sup>2</sup> per year	411 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.2 tonnes per year	1.2 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£169 per year	£169 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## Recommended measures to improve this home's energy performance

Flat A6,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8770-6039-8230-8083-0926

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

D 66

Current environmental impact (CO<sub>2</sub>) rating

C 75

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat A7,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8090-6039-8240-2068-0926  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>	70	70	(69-80) <b>C</b>	77	77
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC 			<b>England &amp; Wales</b> EU Directive 2002/91/EC 		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	397 kWh/m <sup>2</sup> per year	397 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.1 tonnes per year	1.1 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£141 per year	£141 per year
Hot water	£155 per year	£155 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

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- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption



## Recommended measures to improve this home's energy performance

Flat A7,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8090-6039-8240-2068-0926

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 70

Current environmental impact (CO<sub>2</sub>) rating C 77

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A8,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0085-3808-6294-9020-5065  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>68</b>	<b>68</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>76</b>	<b>76</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	399 kWh/m <sup>2</sup> per year	399 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.2 tonnes per year	1.2 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£157 per year	£157 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A8,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0085-3808-6294-9020-5065

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating D 68

Current environmental impact (CO<sub>2</sub>) rating C 76

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat A9,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8008-0088-4039-1226-5903  
Type of assessment: SAP, new dwelling  
Total floor area: 28 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>	<b>54</b>	<b>54</b>
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>67</b>	<b>67</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	423 kWh/m <sup>2</sup> per year	423 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.8 tonnes per year	1.8 tonnes per year
Lighting	£15 per year	£15 per year
Heating	£303 per year	£303 per year
Hot water	£175 per year	£175 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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## Recommended measures to improve this home's energy performance

Flat A9,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8008-0088-4039-1226-5903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating E 54

Current environmental impact (CO<sub>2</sub>) rating D 67

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A10,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0877-3898-6996-9920-7941  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	356 kWh/m <sup>2</sup> per year	356 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£103 per year	£103 per year
Hot water	£154 per year	£154 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A10,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0877-3898-6996-9920-7941

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 74

Current environmental impact (CO<sub>2</sub>) rating C 80

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A11,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8390-6939-7960-9968-9922  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	352 kWh/m <sup>2</sup> per year	352 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£106 per year	£106 per year
Hot water	£155 per year	£155 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A11,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8390-6939-7960-9968-9922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

C 74

Current environmental impact (CO<sub>2</sub>) rating

C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A12,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2088-3099-6399-7390-9920  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>73</b>	<b>73</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	363 kWh/m <sup>2</sup> per year	363 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£115 per year	£115 per year
Hot water	£155 per year	£155 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A12,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2088-3099-6399-7390-9920

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 73

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A13,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8270-6039-8000-0038-0922  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	353 kWh/m <sup>2</sup> per year	353 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£104 per year	£104 per year
Hot water	£155 per year	£155 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A13,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8270-6039-8000-0038-0922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
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Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 74

Current environmental impact (CO<sub>2</sub>) rating C 80

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
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- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat A14,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0081-3808-6092-9020-1071  
Type of assessment: SAP, new dwelling  
Total floor area: 17 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	360 kWh/m <sup>2</sup> per year	360 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.9 tonnes per year	0.9 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£101 per year	£101 per year
Hot water	£153 per year	£153 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A14,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0081-3808-6092-9020-1071

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 74

Current environmental impact (CO<sub>2</sub>) rating C 80

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A15,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0584-3808-6092-9020-6055  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	353 kWh/m <sup>2</sup> per year	353 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£120 per year	£120 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption



## Recommended measures to improve this home's energy performance

Flat A15,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0584-3808-6092-9020-6055

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat A16,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2288-6000-6329-8100-0960  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	355 kWh/m <sup>2</sup> per year	355 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£119 per year	£119 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A16,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2288-6000-6329-8100-0960

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Very good	Very good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat A17,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2788-0000-6329-8700-0980  
Type of assessment: SAP, new dwelling  
Total floor area: 20 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>82</b>	<b>82</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	285 kWh/m <sup>2</sup> per year	285 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£13 per year	£13 per year
Heating	£66 per year	£66 per year
Hot water	£158 per year	£158 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A17,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2788-0000-6329-8700-0980

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 78

Current environmental impact (CO<sub>2</sub>) rating B 82

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A18,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8190-6039-8030-2088-0926  
Type of assessment: SAP, new dwelling  
Total floor area: 21 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>84</b>	<b>84</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	252 kWh/m <sup>2</sup> per year	252 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£14 per year	£14 per year
Heating	£49 per year	£49 per year
Hot water	£161 per year	£161 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



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Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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## Recommended measures to improve this home's energy performance

Flat A18,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8190-6039-8030-2088-0926

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 84

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A19,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0289-3808-6093-9020-8005  
Type of assessment: SAP, new dwelling  
Total floor area: 23 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>66</b>	<b>66</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>75</b>	<b>75</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	362 kWh/m <sup>2</sup> per year	362 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.3 tonnes per year	1.3 tonnes per year
Lighting	£13 per year	£13 per year
Heating	£174 per year	£174 per year
Hot water	£165 per year	£165 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## Recommended measures to improve this home's energy performance

Flat A19,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0289-3808-6093-9020-8005

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

D 66

Current environmental impact (CO<sub>2</sub>) rating

C 75

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A20,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2688-9000-6379-8200-0944  
Type of assessment: SAP, new dwelling  
Total floor area: 16 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>71</b>	<b>71</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>77</b>	<b>77</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	422 kWh/m <sup>2</sup> per year	422 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£9 per year	£9 per year
Heating	£128 per year	£128 per year
Hot water	£151 per year	£151 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

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- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A20,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2688-9000-6379-8200-0944

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 71

Current environmental impact (CO<sub>2</sub>) rating C 77

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A21,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 20 September 2010  
Date of certificate: 20 September 2010  
Reference number: 8720-6031-8080-8030-0922  
Type of assessment: SAP, new dwelling  
Total floor area: 16 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>71</b>	<b>71</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>77</b>	<b>77</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	422 kWh/m <sup>2</sup> per year	422 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£9 per year	£9 per year
Heating	£128 per year	£128 per year
Hot water	£151 per year	£151 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A21,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8720-6031-8080-8030-0922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 71

Current environmental impact (CO<sub>2</sub>) rating C 77

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A22,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2288-6010-6309-8200-0934  
Type of assessment: SAP, new dwelling  
Total floor area: 20 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>67</b>	<b>67</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>75</b>	<b>75</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	398 kWh/m <sup>2</sup> per year	398 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.2 tonnes per year	1.2 tonnes per year
Lighting	£11 per year	£11 per year
Heating	£167 per year	£167 per year
Hot water	£159 per year	£159 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

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Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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## Recommended measures to improve this home's energy performance

Flat A22,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2288-6010-6309-8200-0934

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating

D 67

Current environmental impact (CO<sub>2</sub>) rating

C 75

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A23,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2788-3000-6399-8500-0970  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>67</b>	<b>67</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>75</b>	<b>75</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	424 kWh/m <sup>2</sup> per year	424 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.2 tonnes per year	1.2 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£161 per year	£161 per year
Hot water	£155 per year	£155 per year

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Phone number:	01248 362576
Fax number:	01745 538201
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- Learn more about energy efficiency and reducing energy consumption



## Recommended measures to improve this home's energy performance

Flat A23,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2788-3000-6399-8500-0970

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating D 67

Current environmental impact (CO<sub>2</sub>) rating C 75

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A24,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8107-7088-1039-1126-9903  
Type of assessment: SAP, new dwelling  
Total floor area: 28 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>	<b>50</b>	<b>50</b>
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>65</b>	<b>65</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	456 kWh/m <sup>2</sup> per year	456 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.9 tonnes per year	1.9 tonnes per year
Lighting	£15 per year	£15 per year
Heating	£342 per year	£342 per year
Hot water	£175 per year	£175 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A24,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8107-7088-1039-1126-9903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating E 50

Current environmental impact (CO<sub>2</sub>) rating D 65

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat A25,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2288-1010-6339-8500-0950  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	377 kWh/m <sup>2</sup> per year	377 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£119 per year	£119 per year
Hot water	£154 per year	£154 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A25,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2288-1010-6339-8500-0950

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat A26,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2788-2010-6339-8100-0974  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	373 kWh/m <sup>2</sup> per year	373 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£122 per year	£122 per year
Hot water	£155 per year	£155 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A26,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2788-2010-6339-8100-0974

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat A27,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0987-3808-6193-9020-4081  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>	(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC 			<b>England &amp; Wales</b> EU Directive 2002/91/EC 		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	373 kWh/m <sup>2</sup> per year	373 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£122 per year	£122 per year
Hot water	£155 per year	£155 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A27,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0987-3808-6193-9020-4081

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat A28,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0080-3808-6194-9020-1051  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	374 kWh/m <sup>2</sup> per year	374 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£120 per year	£120 per year
Hot water	£155 per year	£155 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A28,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0080-3808-6194-9020-1051

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A29,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0584-3808-6196-9020-1011  
Type of assessment: SAP, new dwelling  
Total floor area: 17 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	381 kWh/m <sup>2</sup> per year	381 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£116 per year	£116 per year
Hot water	£153 per year	£153 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A29,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0584-3808-6196-9020-1011

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A30,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8070-6039-8160-8018-0926  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>71</b>	<b>71</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	364 kWh/m <sup>2</sup> per year	364 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.1 tonnes per year	1.1 tonnes per year
Lighting	£11 per year	£11 per year
Heating	£127 per year	£127 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat A30,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8070-6039-8160-8018-0926

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 71

Current environmental impact (CO<sub>2</sub>) rating C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat A31,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 28 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8830-6039-8200-9018-0926  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>71</b>	<b>71</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>78</b>	<b>78</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	365 kWh/m <sup>2</sup> per year	365 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.1 tonnes per year	1.1 tonnes per year
Lighting	£11 per year	£11 per year
Heating	£126 per year	£126 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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## Recommended measures to improve this home's energy performance

Flat A31,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8830-6039-8200-9018-0926

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.24 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.23 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 10.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Average	Average

Current energy efficiency rating C 71

Current environmental impact (CO<sub>2</sub>) rating C 78

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat B1,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8009-0068-4039-5226-9903  
Type of assessment: SAP, new dwelling  
Total floor area: 127 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>60</b>	<b>60</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	177 kWh/m <sup>2</sup> per year	177 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.4 tonnes per year	3.4 tonnes per year
Lighting	£81 per year	£81 per year
Heating	£477 per year	£477 per year
Hot water	£388 per year	£388 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## Recommended measures to improve this home's energy performance

Flat B1,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8009-0068-4039-5226-9903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 60

Current environmental impact (CO<sub>2</sub>) rating C 74

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate




Flat B2,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2168-3030-6379-8500-0900  
Type of assessment: SAP, new dwelling  
Total floor area: 131 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>61</b>	<b>61</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	172 kWh/m <sup>2</sup> per year	172 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.4 tonnes per year	3.4 tonnes per year
Lighting	£75 per year	£75 per year
Heating	£475 per year	£475 per year
Hot water	£393 per year	£393 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

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- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B2,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2168-3030-6379-8500-0900

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 61

Current environmental impact (CO<sub>2</sub>) rating C 74

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat B3,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0081-3806-6397-9020-4025  
Type of assessment: SAP, new dwelling  
Total floor area: 126 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>64</b>	<b>64</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>76</b>	<b>76</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	161 kWh/m <sup>2</sup> per year	161 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.1 tonnes per year	3.1 tonnes per year
Lighting	£74 per year	£74 per year
Heating	£405 per year	£405 per year
Hot water	£376 per year	£376 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B3,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0081-3806-6397-9020-4025

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 64

Current environmental impact (CO<sub>2</sub>) rating C 76

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat B4,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0285-3806-6397-9020-3001  
Type of assessment: SAP, new dwelling  
Total floor area: 127 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>69</b>	<b>69</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	138 kWh/m <sup>2</sup> per year	138 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	2.6 tonnes per year	2.6 tonnes per year
Lighting	£81 per year	£81 per year
Heating	£270 per year	£270 per year
Hot water	£388 per year	£388 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

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Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B4,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0285-3806-6397-9020-3001

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 69

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat B5,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2668-5030-6389-8700-0984  
Type of assessment: SAP, new dwelling  
Total floor area: 131 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>70</b>	<b>70</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	136 kWh/m <sup>2</sup> per year	136 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	2.7 tonnes per year	2.7 tonnes per year
Lighting	£75 per year	£75 per year
Heating	£276 per year	£276 per year
Hot water	£393 per year	£393 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## Recommended measures to improve this home's energy performance

Flat B5,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2668-5030-6389-8700-0984

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good
Current energy efficiency rating		C 70	
Current environmental impact (CO <sub>2</sub> ) rating		C 80	

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat B6,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8009-7068-8039-0326-9903  
Type of assessment: SAP, new dwelling  
Total floor area: 23 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>84</b>	<b>84</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	235 kWh/m <sup>2</sup> per year	235 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£53 per year	£53 per year
Hot water	£166 per year	£166 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B6,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8009-7068-8039-0326-9903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 84

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat B7,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8002-7068-9039-8326-0903  
Type of assessment: SAP, new dwelling  
Total floor area: 126 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>81</b>	<b>81</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	128 kWh/m <sup>2</sup> per year	128 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	2.4 tonnes per year	2.4 tonnes per year
Lighting	£74 per year	£74 per year
Heating	£218 per year	£218 per year
Hot water	£387 per year	£387 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B7,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8002-7068-9039-8326-0903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating B 81

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat B8,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0888-3806-6490-9020-6081  
Type of assessment: SAP, new dwelling  
Total floor area: 129 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>62</b>	<b>62</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>75</b>	<b>75</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	170 kWh/m <sup>2</sup> per year	170 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.3 tonnes per year	3.3 tonnes per year
Lighting	£76 per year	£76 per year
Heating	£455 per year	£455 per year
Hot water	£390 per year	£390 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption



## Recommended measures to improve this home's energy performance

Flat B8,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0888-3806-6490-9020-6081

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 62

Current environmental impact (CO<sub>2</sub>) rating C 75

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat B9,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8260-6039-8410-1046-0926  
Type of assessment: SAP, new dwelling  
Total floor area: 127 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>69</b>	<b>69</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	138 kWh/m <sup>2</sup> per year	138 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	2.6 tonnes per year	2.6 tonnes per year
Lighting	£81 per year	£81 per year
Heating	£270 per year	£270 per year
Hot water	£388 per year	£388 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

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- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B9,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8260-6039-8410-1046-0926

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 69

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate




Flat B10,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2268-9020-6379-8300-0904  
Type of assessment: SAP, new dwelling  
Total floor area: 131 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
<i>Very energy efficient - lower running costs</i>		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>61</b>	<b>61</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
<i>Not energy efficient - higher running costs</i>		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
<i>Very environmentally friendly - lower CO<sub>2</sub> emissions</i>		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
<i>Not environmentally friendly - higher CO<sub>2</sub> emissions</i>		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	171 kWh/m <sup>2</sup> per year	171 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.4 tonnes per year	3.4 tonnes per year
Lighting	£75 per year	£75 per year
Heating	£468 per year	£468 per year
Hot water	£393 per year	£393 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B10,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2268-9020-6379-8300-0904

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 61

Current environmental impact (CO<sub>2</sub>) rating C 74

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat B11,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0082-3806-6392-9020-5081  
Type of assessment: SAP, new dwelling  
Total floor area: 23 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>77</b>	<b>77</b>	(69-80) <b>C</b>	<b>82</b>	<b>82</b>
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC			<b>England &amp; Wales</b> EU Directive 2002/91/EC		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	267 kWh/m <sup>2</sup> per year	267 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.9 tonnes per year	0.9 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£85 per year	£85 per year
Hot water	£166 per year	£166 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
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Related party disclosure:	No related party

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## About the building's performance ratings

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Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B11,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0082-3806-6392-9020-5081

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 77

Current environmental impact (CO<sub>2</sub>) rating B 82

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat B12,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8002-0068-5039-4326-1903  
Type of assessment: SAP, new dwelling  
Total floor area: 126 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>64</b>	<b>64</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>76</b>	<b>76</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	161 kWh/m <sup>2</sup> per year	161 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.1 tonnes per year	3.1 tonnes per year
Lighting	£74 per year	£74 per year
Heating	£396 per year	£396 per year
Hot water	£387 per year	£387 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B12,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8002-0068-5039-4326-1903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 64

Current environmental impact (CO<sub>2</sub>) rating C 76

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat B13,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2868-2030-6359-8400-0940  
Type of assessment: SAP, new dwelling  
Total floor area: 129 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>71</b>	<b>71</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	133 kWh/m <sup>2</sup> per year	133 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	2.6 tonnes per year	2.6 tonnes per year
Lighting	£76 per year	£76 per year
Heating	£252 per year	£252 per year
Hot water	£390 per year	£390 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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Certification mark

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Fax number:	01745 538201
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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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## Recommended measures to improve this home's energy performance

Flat B13,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2868-2030-6359-8400-0940

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 71

Current environmental impact (CO<sub>2</sub>) rating C 80

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat B14,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2368-9030-6349-8400-0974  
Type of assessment: SAP, new dwelling  
Total floor area: 127 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>61</b>	<b>61</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	176 kWh/m <sup>2</sup> per year	176 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.4 tonnes per year	3.4 tonnes per year
Lighting	£81 per year	£81 per year
Heating	£469 per year	£469 per year
Hot water	£388 per year	£388 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## Recommended measures to improve this home's energy performance

Flat B14,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2368-9030-6349-8400-0974

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 61

Current environmental impact (CO<sub>2</sub>) rating C 74

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat B15,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0288-3806-6396-9020-1001  
Type of assessment: SAP, new dwelling  
Total floor area: 129 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
<i>Very energy efficient - lower running costs</i>		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>		
(55-68) <b>D</b>	<b>62</b>	<b>62</b>
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
<i>Not energy efficient - higher running costs</i>		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
<i>Very environmentally friendly - lower CO<sub>2</sub> emissions</i>		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>75</b>	<b>75</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
<i>Not environmentally friendly - higher CO<sub>2</sub> emissions</i>		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	169 kWh/m <sup>2</sup> per year	169 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.3 tonnes per year	3.3 tonnes per year
Lighting	£76 per year	£76 per year
Heating	£448 per year	£448 per year
Hot water	£390 per year	£390 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat B15,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0288-3806-6396-9020-1001

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating D 62

Current environmental impact (CO<sub>2</sub>) rating C 75

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C1,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Ground-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0484-3806-6491-9020-6081  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>77</b>	<b>77</b>	(69-80) <b>C</b>	<b>81</b>	<b>81</b>
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC			<b>England &amp; Wales</b> EU Directive 2002/91/EC		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	330 kWh/m <sup>2</sup> per year	330 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.9 tonnes per year	0.9 tonnes per year
Lighting	£9 per year	£9 per year
Heating	£82 per year	£82 per year
Hot water	£154 per year	£154 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

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Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption



## Recommended measures to improve this home's energy performance

Flat C1,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0484-3806-6491-9020-6081

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 77

Current environmental impact (CO<sub>2</sub>) rating B 81

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate




Flat C2,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8570-6039-8440-1006-0922  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>


This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>83</b>	<b>83</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC 	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	283 kWh/m <sup>2</sup> per year	283 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£10 per year	£10 per year
Heating	£60 per year	£60 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C2,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8570-6039-8440-1006-0922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 79

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.





# Energy Performance Certificate



Flat C3,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0883-3806-6494-9020-6021  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>	(69-80) <b>C</b>	<b>83</b>	<b>83</b>
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC 			<b>England &amp; Wales</b> EU Directive 2002/91/EC 		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	280 kWh/m <sup>2</sup> per year	280 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£56 per year	£56 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C3,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0883-3806-6494-9020-6021

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C4,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0884-3806-6291-9020-3271  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>	(69-80) <b>C</b>	<b>83</b>	<b>83</b>
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC			<b>England &amp; Wales</b> EU Directive 2002/91/EC		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	280 kWh/m <sup>2</sup> per year	280 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£56 per year	£56 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

Certification mark

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C4,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0884-3806-6291-9020-3271

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C5,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0985-3806-6494-9020-7025  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>83</b>	<b>83</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	280 kWh/m <sup>2</sup> per year	280 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£56 per year	£56 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C5,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0985-3806-6494-9020-7025

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C6,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 0788-3806-6494-9020-1005  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>83</b>	<b>83</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	280 kWh/m <sup>2</sup> per year	280 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£56 per year	£56 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

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## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C6,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 0788-3806-6494-9020-1005

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C7,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 8810-6039-8450-0006-0926  
Type of assessment: SAP, new dwelling  
Total floor area: 24 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>73</b>	<b>73</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	302 kWh/m <sup>2</sup> per year	302 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.1 tonnes per year	1.1 tonnes per year
Lighting	£15 per year	£15 per year
Heating	£118 per year	£118 per year
Hot water	£166 per year	£166 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C7,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 8810-6039-8450-0006-0926

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.21 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 73

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat C8,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 20 September 2010  
Reference number: 2668-3040-6359-8100-0944  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

Energy Efficiency Rating			Environmental Impact (CO <sub>2</sub> ) Rating		
	Current	Potential		Current	Potential
Very energy efficient - lower running costs			Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>			(92-plus) <b>A</b>		
(81-91) <b>B</b>			(81-91) <b>B</b>		
(69-80) <b>C</b>			(69-80) <b>C</b>		
(55-68) <b>D</b>			(55-68) <b>D</b>		
(39-54) <b>E</b>			(39-54) <b>E</b>		
(21-38) <b>F</b>			(21-38) <b>F</b>		
(1-20) <b>G</b>			(1-20) <b>G</b>		
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b> EU Directive 2002/91/EC 			<b>England &amp; Wales</b> EU Directive 2002/91/EC 		

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	279 kWh/m <sup>2</sup> per year	279 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.7 tonnes per year	0.7 tonnes per year
Lighting	£9 per year	£9 per year
Heating	£43 per year	£43 per year
Hot water	£153 per year	£153 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C8,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 20 September 2010  
Reference number: 2668-3040-6359-8100-0944

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	(other premises above)	-	-
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating B 81

Current environmental impact (CO<sub>2</sub>) rating B 84

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C9,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 21 September 2010  
Reference number: 8000-3068-6039-3426-6903  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>83</b>	<b>83</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	282 kWh/m <sup>2</sup> per year	282 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£58 per year	£58 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption



## Recommended measures to improve this home's energy performance

Flat C9,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 21 September 2010  
Reference number: 8000-3068-6039-3426-6903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 79

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C10,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 21 September 2010  
Reference number: 8850-6039-8410-6046-0922  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>83</b>	<b>83</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	279 kWh/m <sup>2</sup> per year	279 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£55 per year	£55 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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## About this document

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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

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The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C10,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 21 September 2010  
Reference number: 8850-6039-8410-6046-0922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.



# Energy Performance Certificate



Flat C11,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 21 September 2010  
Reference number: 8008-7068-1039-3426-6903  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>83</b>	<b>83</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	279 kWh/m <sup>2</sup> per year	279 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£55 per year	£55 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

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## Recommended measures to improve this home's energy performance

Flat C11,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 21 September 2010  
Reference number: 8008-7068-1039-3426-6903

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C12,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 21 September 2010  
Reference number: 0984-3806-6492-9020-8045  
Type of assessment: SAP, new dwelling  
Total floor area: 19 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>83</b>	<b>83</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	279 kWh/m <sup>2</sup> per year	279 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£12 per year	£12 per year
Heating	£55 per year	£55 per year
Hot water	£157 per year	£157 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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## Recommended measures to improve this home's energy performance

Flat C12,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 21 September 2010  
Reference number: 0984-3806-6492-9020-8045

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 80

Current environmental impact (CO<sub>2</sub>) rating B 83

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None



## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

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- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C13,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 21 September 2010  
Reference number: 8530-6039-8420-6086-0922  
Type of assessment: SAP, new dwelling  
Total floor area: 23 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>74</b>	<b>74</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>80</b>	<b>80</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	294 kWh/m <sup>2</sup> per year	294 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.0 tonnes per year	1.0 tonnes per year
Lighting	£15 per year	£15 per year
Heating	£105 per year	£105 per year
Hot water	£165 per year	£165 per year

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Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C13,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 21 September 2010  
Reference number: 8530-6039-8420-6086-0922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 74

Current environmental impact (CO<sub>2</sub>) rating C 80

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C14,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Mid-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 21 September 2010  
Reference number: 2668-2040-6339-8300-0980  
Type of assessment: SAP, new dwelling  
Total floor area: 24 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>72</b>	<b>72</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	303 kWh/m <sup>2</sup> per year	303 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.1 tonnes per year	1.1 tonnes per year
Lighting	£15 per year	£15 per year
Heating	£119 per year	£119 per year
Hot water	£166 per year	£166 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



Certification mark

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For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)**



## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections)(England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings on the certificate provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in England and Wales is band E (rating 46).

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Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

## About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

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- Learn more about energy efficiency and reducing energy consumption

## Recommended measures to improve this home's energy performance

Flat C14,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 21 September 2010  
Reference number: 2668-2040-6339-8300-0980

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
Floor	(other premises below)	-	-
Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 72

Current environmental impact (CO<sub>2</sub>) rating C 79

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.

Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None

### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme.

# Energy Performance Certificate



Flat C15,  
Abbeygate,  
Victoria Road,  
CHESTER,  
CH2 2AX

Dwelling type: Top-floor flat  
Date of assessment: 26 January 2010  
Date of certificate: 21 September 2010  
Reference number: 8430-6039-8440-0066-0922  
Type of assessment: SAP, new dwelling  
Total floor area: 18 m<sup>2</sup>

This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92-plus) <b>A</b>		
(81-91) <b>B</b>		
(69-80) <b>C</b>	<b>79</b>	<b>79</b>
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not energy efficient - higher running costs		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

## Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92-plus) <b>A</b>		
(81-91) <b>B</b>	<b>82</b>	<b>82</b>
(69-80) <b>C</b>		
(55-68) <b>D</b>		
(39-54) <b>E</b>		
(21-38) <b>F</b>		
(1-20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
<b>England &amp; Wales</b>	EU Directive 2002/91/EC	

The environmental impact rating is a measure of a home's impact on the environment in terms of Carbon Dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	310 kWh/m <sup>2</sup> per year	310 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	0.8 tonnes per year	0.8 tonnes per year
Lighting	£9 per year	£9 per year
Heating	£66 per year	£66 per year
Hot water	£153 per year	£153 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.



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Assessor's accreditation number:	EES/006511
Assessor's name:	Mr. John Rigby
Company name/trading name:	Watkin Jones Group Limited
Address:	St Asaph Business Park, St Asaph, Denbighshire, LL17 0JG
Phone number:	01248 362576
Fax number:	01745 538201
E-mail address:	john.rigby@watkinjones.com
Related party disclosure:	No related party

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.elmhurstenergy.co.uk](http://www.elmhurstenergy.co.uk) together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

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## Recommended measures to improve this home's energy performance

Flat C15,  
Abbeygate,  
Victoria Road,  
CHESTER, CH2 2AX

Date of certificate: 21 September 2010  
Reference number: 8430-6039-8440-0066-0922

### Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m <sup>2</sup> K	Very good	Very good
Roof	Average thermal transmittance 0.20 W/m <sup>2</sup> K	Good	Good
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Windows	Fully double glazed	Good	Good
Main heating	Room heaters, electric	Compliant	Compliant
Main heating controls	Programmer and appliance thermostats	Good	Good
Secondary heating	None	-	-
Hot water	Electric immersion, standard tariff	Compliant	Compliant
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Air tightness	Air permeability 4.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

Current energy efficiency rating C 79

Current environmental impact (CO<sub>2</sub>) rating B 82

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.  
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

### Low and zero carbon energy sources

None

## Recommendations

None

## Further measures to achieve even higher standards

None



### About the cost effective measures to improve this home's performance ratings

Not applicable

### About the further measures to achieve even higher standards

Not applicable

### What can I do today?

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