

# Energy Performance Certificate

## Address of dwelling and other details

16 NORTHFIELD DRIVE,  
EDINBURGH,  
EH8 7RW

Dwelling type:  
Name of approved organisation:  
Membership number:  
Date of certificate:  
Reference number:  
Total floor area:  
Main type of heating and fuel:

Ground-floor maisonette  
Elmhurst Energy Systems Ltd  
EES/006441  
30 September 2009  
0110-2260-3010-0671-3255  
89 m<sup>2</sup>  
Boiler and radiators, mains gas

## This dwelling's performance ratings

This dwelling has been assessed using the RdSAP 2005 methodology. Its 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. CO<sub>2</sub> is a greenhouse gas that contributes to climate change.

Energy Efficiency Rating		Environmental Impact (CO <sub>2</sub> ) Rating	
	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>			<b>B</b>
<b>C</b>	<b>73</b>	<b>76</b>	<b>C</b>
(55-68) <b>D</b>			<b>D</b>
<b>E</b>			<b>E</b>
<b>F</b>			(21-38) <b>F</b>
<b>G</b>			(1-20) <b>G</b>
Not energy efficient - higher running costs			Not environmentally friendly - higher CO <sub>2</sub> emissions
<b>Scotland</b>	EU Directive 2002/91/EC		<b>Scotland</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.

Approximate current energy use per square metre of floor area: 199 kWh/m<sup>2</sup> per year

Approximate current CO<sub>2</sub> emissions: 33 kg/m<sup>2</sup> per year

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.

## Cost effective improvements

Below is a list of lower cost measures that will raise the energy performance of the dwelling to the potential indicated in the tables above. Higher cost measures could also be considered and these are recommended in the attached energy report.

1 Low energy lighting for all fixed outlets

2 Upgrade heating controls

*A full energy report is appended to this certificate*



Information from this EPC may be given to Energy Saving Trust to provide advice to householders on financial help available to improve home energy efficiency.

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)

**N.B. THIS CERTIFICATE MUST BE AFFIXED TO THE DWELLING AND NOT BE REMOVED UNLESS IT IS REPLACED WITH AN UPDATED VERSION**

**Energy Report**

The Energy Performance Certificate and Energy Report for this dwelling were produced following an energy assessment undertaken by a member of Elmhurst Energy Systems Ltd. This is an organisation which has been approved by the Scottish Ministers. The certificate has been produced under the Building (Scotland) Amendment Regulations 2006 and a copy of the certificate and this energy report have been lodged on a national register.

Assessor's name: Mr. Mark Greenhalgh  
 Company name/trading name: Mark Greenhalgh  
 Address: 25 Gilberstoun Place, Midlothian, Edinburgh, EH15 2RB  
 Phone number: 0131 657 4900  
 Fax number:  
 E-mail address: enquiries@urgentepcs.co.uk  
 Related party disclosure:

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

	Current	Potential
Energy use	199 kWh/m <sup>2</sup> per year	181 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.0 tonnes per year	2.7 tonnes per year
Lighting	£81 per year	£49 per year
Heating	£412 per year	£396 per year
Hot water	£116 per year	£109 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.

**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.

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.

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.

### 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: Very poor / Poor / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Cavity wall, filled cavity	Good	Good
Roof	(another dwelling above)	-	-
Floor	Suspended, no insulation (assumed)	-	-
Windows	Fully double glazed	Average	Average
Main heating	Boiler and radiators, mains gas	Good	Good
Main heating controls	Programmer, TRVs and bypass	Poor	Poor
Secondary heating	None	-	-
Hot water	From main system	Good	Good
Lighting	Low energy lighting in 33% of fixed outlets	Average	Average

### Low and zero carbon energy sources

These are sources of energy (producing or providing electricity or hot water) which emit little or no carbon dioxide into the atmosphere. There are none applicable to this home.

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

The measures below are cost effective. The performance ratings after improvement listed below are cumulative, that is they assume the improvements have been installed in the order that they appear in the table. However you should check the conditions in any covenants, warranties or sale contracts, and whether any legal permissions are required such as a building warrant, planning consent or listed building restrictions.

Lower cost measures (up to £500)	Typical savings per year	Performance ratings after improvement	
		Energy efficiency	Environmental impact
1 Low energy lighting for all fixed outlets	£26	C 75	C 71
2 Upgrade heating controls	£30	C 76	C 73
<b>Sub-total</b>	<b>£56</b>		
<b>Higher cost measures (over £500)</b>			
3 Replace boiler with Band A condensing boiler	£42	C 79	C 76
<b>Total</b>	<b>£98</b>		

### Further measures to achieve even higher standards

None

Improvements to the energy efficiency and environmental impact ratings will usually be in step with each other. However, they can sometimes diverge because reduced energy costs are not always accompanied by a reduction in carbon dioxide (CO<sub>2</sub>) emissions.

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

If you are a tenant, before undertaking any work you should check the terms of your lease and obtain approval from your landlord if the lease either requires it, or makes no express provision for such work.

### Lower cost measures (typically up to £500 each)

These measures are relatively inexpensive to install and are worth tackling first. Some of them may be installed as DIY projects. DIY is not always straightforward, and sometimes there are health and safety risks, so take advice before carrying out DIY improvements.

#### 1 Low energy lighting

Replacement of traditional light bulbs with energy saving recommended ones will reduce lighting costs over the lifetime of the bulb, and they last up to 12 times longer than ordinary light bulbs. Also consider selecting low energy light fittings when redecorating; contact the Lighting Association for your nearest stockist of Domestic Energy Efficient Lighting Scheme fittings.

#### 2 Heating controls (room thermostat)

The heating system should have a room thermostat to enable the boiler to switch off when no heat is required. A competent heating engineer should be asked to do this work. Insist that the thermostat switches off the boiler as well as the pump and that the thermostatic radiator valve is removed from any radiator in the same room as the thermostat. Building regulations may apply to this work, so it is best to obtain advice from your local authority building standards department and from a qualified heating engineer.

### Higher cost measures (typically over £500 each)

#### 3 Band A condensing boiler

A condensing boiler is capable of much higher efficiencies than other types of boiler, meaning it will burn less fuel to heat this property. This improvement is most appropriate when the existing central heating boiler needs repair or replacement, but there may be exceptional circumstances making this impractical. Condensing boilers need a drain for the condensate which limits their location; remember this when considering remodelling the room containing the existing boiler even if the latter is to be retained for the time being (for example a kitchen makeover). Building regulations may apply to this work, so it is best to obtain advice from your local authority building standards department and from a qualified heating engineer.

## 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 CO<sub>2</sub> emissions.
- If you have a conservatory or sunroom, avoid heating it in order to use it in cold weather and close doors between the conservatory and dwelling.
- 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.
- 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.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme. Minimise the use of tumble dryers and dry clothes outdoors where possible.
- Close your curtains at night to reduce heat escaping through the windows.

# SELECT

## PERIODIC INSPECTION REPORT FOR A SMALL ELECTRICAL INSTALLATION (REQUIREMENTS FOR ELECTRICAL INSTALLATIONS - BS 7671 (IEE WIRING REGULATIONS))

PIR (SI) 033785

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This certificate is not valid if the number is abstracted or altered

### DETAILS OF THE CLIENT

Client: **MR AKRAM ALI**  
Address: **16 NORTHFIELD DRIVE EDINBURGH EH8 7AW**

Purpose for which this Report is required: **PROPERTY LEASING**

### DETAILS OF THE INSTALLATION

Occupier: **AS ABOVE**  
Installation: **AS ABOVE**  
Address: .....

Description of premises: Domestic  Commercial  Industrial  Other

Estimated age of the Electrical Installation: **2.5** years  
Evidence of Alterations or Additions: Yes  No  Not apparent

If "Yes" estimate age: **10** years  
Date of last inspection: **20/3/08** Records available: Yes  No

### EXTENT AND LIMITATIONS OF THE INSPECTION

Extent of electrical installation covered by this report: **20% ~~FIXTURES~~ / ESSENTIAL TESTS**  
Limitations: .....

This inspection has been carried out in accordance with BS7671:2001 (IEE Wiring Regulations) amended to **2004**. Cables concealed within trunking and conduits, or cables and conduits concealed under floors, in roof spaces and generally within the fabric of the building or underground have not been inspected.

### NEXT INSPECTION

I/We recommend that this installation is further inspected and tested after an interval of not more than **3** months/years, provided that any observations requiring urgent attention are attended to without delay.

### DECLARATION

INSPECTED AND TESTED BY:

Name: **ALLAN SCOTT** Signature: **Allan Scott**

For and on behalf of: **SCOTT ELECT INST & TEST** Position: **ELECTRICIAN**

Address: **1 PROSPECT BRINK ROAD** Date: **11/4/07**

EO: **MSUELYH**  
EHC: **TUK**

This form includes the entire content of the Periodic Inspection Report for an Electrical Installation in BS7671 - IEE Regulations. It was developed by SELECT (the trading style of The Electrical Contractors' Association of Scotland)

### SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

Earthing arrangements	Number and Type of Live Conductors	Nature of Supply Parameters	Supply Protective Device Characteristics
TN-C <input type="checkbox"/>	a.c. <input checked="" type="checkbox"/> d.c. <input type="checkbox"/>	Nominal voltage, $U_0$ (V) <b>230</b> V	Type: <b>BS1361</b>
TN-S <input checked="" type="checkbox"/>	1-phase, 2-wire <input checked="" type="checkbox"/> 2-pole <input type="checkbox"/>	Nominal Frequency, $f_n$ (Hz) <b>50</b> Hz	Nominal current rating: <b>100</b> A
TN-C-S <input type="checkbox"/>	2-phase, 3-wire <input type="checkbox"/> 3-pole <input type="checkbox"/>	Prospective fault current, $I_p$ (kA) <b>1.0</b> kA	
TT <input type="checkbox"/>	3-phase, 3-wire <input type="checkbox"/> other <input type="checkbox"/>	External loop impedance, $Z_e$ ( $\Omega$ ) <b>0.22</b> $\Omega$	
IT <input type="checkbox"/>	3-phase, 4-wire <input type="checkbox"/>	(Note: (1) by enquiry (2) by enquiry or by measurement)	

### PARTICULARS OF INSTALLATION REFERRED TO IN THE REPORT

Means of Earthing	Details of Installation Earth Electrode (where applicable)	Location	Electrode resistance to earth ( $\Omega$ )
Distributor's facility <input checked="" type="checkbox"/>	Type (e.g. rod(s), tape etc)		
Installation earth electrode <input type="checkbox"/>	Main Protective Conductors		
Earthing Conductor:	material: <b>COPPER</b> csa: <b>16</b> mm <sup>2</sup>		
Main equipotential bonding conductors	material: <b>COPPER</b> csa: <b>16</b> mm <sup>2</sup>		
To incoming water service <input checked="" type="checkbox"/>	To incoming gas service <input type="checkbox"/>		
To incoming protection <input type="checkbox"/>	To other incoming service(s) (state details: .....		
	Main Switch or Circuit-breaker		

BS Type and number of poles: **BS EN 60947-3** Current rating: **100** A Voltage rating: **230** V  
Location: **HALL CUPBOARDS** Fusing rating or setting: **100** A  
Rated residual operating current  $I_{\Delta n}$  = ..... mA, and operating time of ..... ms (at  $I_{\Delta n}$ ) (single cable time where an RCD is available)

### OBSERVATIONS AND RECOMMENDATIONS

Referring to the attached Schedule(s) of inspection and Test Results, and subject to the limitations specified at the Extent and Limitations of the inspection section  
 No remedial work is required  The following observations are made:  
**MAIN WATER BONDED BUT NOT AT POINT OF ENTRY**  
**BATHROOM LIGHTING / METRE BOARD NOT BOUNDED TOGETHER**  
**CONDUITS NOT IDENTIFIED**  
**SOCKETS NOT WIRED AS RING**

One of the following numbers, as appropriate, is to be allocated to each of the observations made above to indicate to the person(s) responsible for the installation the action recommended:  
 requires urgent attention  requires improvement  requires further investigation  
 does not comply with BS7671:2001 amended to ..... This does not imply that the electrical installation inspected is unsafe.

### SUMMARY OF THE INSPECTION

Date(s) of the inspection: **11/4/07**  
General condition of the installation: **SATISFACTORY**

Overall assessment: Satisfactory/**Unsatisfactory**

### SCHEDULES

The attached Schedules are part of this document and this Report is valid only when they are attached to it.  
 Inspection Schedules and  Test Result Schedules are attached.  
 (Enter quantities of schedules attached)

# SCHEDULE OF ITEMS INSPECTED

## Methods of protection against electric shock

- Insulation of live parts and barriers or enclosures
- Presence of RCD(s) for supplementary protection against direct contact and/or protection against indirect contact
- Presence of earthing conductor and circuit protective conductors
- Presence of main equipotential bonding conductors
- Presence of supplementary equipotential bonding conductors
- Class II fixed equipment
- SELV

## Prevention of mutual detrimental influence

- Proximity of non-electrical services and other influences
- Segregation of Band I and Band II circuits or Band II insulation used
- Electrical separation
- Identification
  - Presence of diagrams, instructions, circuits charts and similar information
  - Presence of danger notices
  - Presence of other warning notices

## Identification (cont'd)

- Labelling of protective devices, switches and terminals
- Identification of conductors
- Cables and conductors
  - Routing of cables in prescribed zones or within mechanical protection
  - Connection of conductors
  - Erection methods
  - Selection of conductors for current carrying capacity and voltage drop
  - Presence of fire barriers, suitable seals and protection against thermal effects

## General

- Presence and correct location of appropriate for devices for isolation and switching
- Adequacy of access to switchgear and other equipment
- Particular protective measures for special installations and locations
- Connection of single-pole devices for protection or switching in phase conductors only
- Correct connection of accessories and equipment
- Choice and setting of protective and monitoring devices (for protection against indirect contact and/or overcurrent) appropriate to external influences
- Selection of appropriate functional switching devices

No.	Circuit Description	Wiring Type	No. of Points	Conductor Size mm <sup>2</sup>			Overcurrent Protection Breaking Capacity	Continuity	Ring Circuit Continuity			Insulation Resistance			TEST RESULTS			REMARKS			
				Live	CPC	Amps			R <sub>2</sub>	R <sub>1</sub> +R <sub>2</sub>	P-P	N-N	OPC-OPC	P-N	P-E	N-E	Earth Loop Impedance Max. Value		RCD/RCBO Rated Operating Current	RCD/RCBO Disconnection Times	Test
				mm <sup>2</sup>	mm <sup>2</sup>	KA			ohms	ohms	ohms	ohms	ohms	ohms	ohms	ohms	mA		ms	ms	
1	COORER	PVC	1	6	2.5	32	-	0.32	-	-	-	200	200	200	0.6	-	-	-	-		
2	LIGHTS	"	6	2.5	6	-	0.67	-	-	-	-	200	200	200	0.95	-	-	-	-		
3	BUILDER	"	1	2.5	1.5	6	-	0.26	-	-	-	200	200	200	0.54	-	-	-	-		
4	SWITCH ARMOUR	"	1	1.5	1	6	-	0.6	-	-	-	200	200	200	0.28	-	-	-	-		
5	LIGHTS	"	6	2.5	6	6	-	0.74	-	-	-	200	200	200	1.02	-	-	-	-		
6	SPARE	"	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-		
ACB PROTECTED CIRCUITS																					
7	SOCKETS (FUSES BORND)	"	8	4	6	32	-	0.31	-	-	-	200	200	200	0.59	30	28	8	✓		
8	SOCKETS	"	4	4	6	16	-	0.4	-	-	-	200	200	200	0.68	30	28	8	✓		
9	SOCKETS	"	3	4	6	16	-	0.42	-	-	-	200	200	200	0.7	30	28	8	✓		
10	SOCKETS	"	4	2.5	1.5	16	-	6.5	-	-	-	200	200	200	0.78	30	28	8	✓		
11	SPARE	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-		
12	SPARE	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-		

◆ Lowest values recorded

\* 30mA RCDs only

■ record R<sub>2</sub> or R<sub>1</sub> + R<sub>2</sub>

## INSTRUMENTS USED

Manufacturer	Type	Serial No.	Date Accuracy Verified	Manufacturer	Type	Serial No.	Date Accuracy Verified
ROBIN	KMP 4/20	123557	10/2/07	ROBIN	EM 500	4117527	10/2/07
AS	INS CON TESTER	UNKNOWN	10/2/07	ROBIN	KMP 5404 DC	4117527	10/2/07

# Scott Electrical Inspection & Testing : Portable Appliance Test Report

Client: Premises: 16 Northfield Drive, Edinburgh -

-P21300-

	Appliance Serial Number	Appliance Description	Location	Test Type	Test Date	Pass Y/N	Comments	Initials of Tester
1.		WASHING MACHINES	KITCHEN	EARTH INSUL 0.08 INSUL 9.90	18.4.08	Y	Pass	STU.
2.	BEKO SCG 7521	COOKER IGNITER	KITCHEN	EARTH INSUL 0.06 INSUL 9.90	18.4.08	Y	Pass	STU.
3.	Prestige DS20	MICROWAVE	KITCHEN	EARTH INSUL 0.10 INSUL 9.90	18.4.08	Y	Pass	STU.
4.	Praxine 1800W	Hoover	KITCHEN	INSUL 9.90 LEAK 0.30	18.4.08	Y	Pass	STU.
5.	SIEVIS M77655	FRIDGE FREEZER	KITCHEN	EARTH INSUL 0.06 INSUL 9.90	18.4.08	Y	Pass	STU.
6.								
7.								
8.								
9.								
10.								



THE NEXT GAS SAFETY CHECK MUST BE COMPLETED WITHIN THE NEXT 12 MONTHS

Received By Signature: *George Reynolds*  
 Registered Engineer Signature: *George Reynolds*  
 Print Name: THOMAS BARNES  
 Date: 16/2/10

Print Name: *George Reynolds*  
 Date: *17/2/10*

REMEDIAL WORK UNDERTAKEN

Gas safe checked by: *George Reynolds*  
 Date: *16/2/10*

DEFECT (S) DETECTED

Is this appliance safe to use? (Y/N)	Is this appliance owned by the landlord? (Yes/No)	Is there adequate ventilation? (Yes/No)	Has the appliance been serviced? (Yes/No)	Combustion performance reading CO:CO2 ratio / CO2 / CO	Is this appliance safe to use? (Y/N)	Is No - has a warning advice notice been issued? (Y/N)
Y	Y	Y	Y	1.5 / 1.5	Y	N
Y	Y	Y	Y	1.5 / 1.5	Y	N

INSPECTION

Spillage (Pass / Fail / NA)	Smoke Pellet (Flue Flow) (Pass / Fail / NA)	Adequate termination (Yes / No / NA)	Visual condition (Pass / Fail / NA)
Pass	Pass	Pass	Pass

FLUE TESTS

Location of appliance	Appliance classification	Appliance make	Appliance model	Type of flue/outlet (CF / RS / FL)	Working pressure in mbar or heat input kW/Btu/h	Arc safety devices working? (Yes / No / NA)
Living Room	Boiler	Parson	SGG 7521	FL	9.6 mbar	Y

APPLIANCE SPECIFICS

is Equiptental Bonding satisfactory?(Y/N)    
 Visual inspection satisfactory?(Y/N)    
 Gas Tightness Test satisfactory?(Y/N)    
 Emergency Control Valve Accessible? (Yes / No)

GAS INSTALLATION PIPEWORK

Gas Safe Reg. No: 187848  
 Engineer Name: GEORGE REYNOLDS  
 Gas Safe ID Card No: 2273950  
 B.G.H.C.  
 CALDERWOOD GARDENS, COTTAGE  
 CALDERWOOD, EAST KILBRIDE, G74 3SB  
 Tel. No: 01355 905302  
 Name: THOMAS BARNES  
 Address: 16 Calderwood  
 DN11 7RN  
 Tel. No:  
 Is accommodation rented? YES  NO   
 No. of Appliances tested:

This form allows for the recording of results of checks as defined by the Gas Safety (Installation and Use) Regulations. Information recorded on this form does not confirm that the installation was installed by a Gas Safe registered business or that the installation complies with relevant Building Regulations. Chimney/flue/outlets were visually checked for adequate ventilation of combustion products. A detailed internal inspection has not been undertaken.



**LANDLORD/HOMEOWNER**

SERIAL NO: 0042377

To confirm the validity of the Registered Gas Engineer please contact Gas Safe on 0800 406 5577 or www.gasaferegister.co.uk