EcoHomes 2006 –
The environmental rating for homes

Pre Assessment Estimator – 2006 / 1.3

April 2006

This pre-assessment estimator allows an evaluation of the likely rating to be achieved under a formal EcoHomes assessment.

NOTE: *The rating obtained by using this Pre Assessment Estimator is for guidance only. Predicted ratings may differ from those obtained through a formal assessment, which must be carried out by a licensed EcoHomes assessor. Individual credit scores are rounded to the nearest two decimal points. Full guidance on the credit requirements can be found at http://www.ecohomes.org. Advice should be sought from a licensed assessor at an early stage in a project to ensure that the estimated rating will be obtained. A list of licensed assessors can be found at the EcoHomes website or by contacting the BREEAM office.*

© Building Research Establishment Ltd, April 2006. The EcoHomes name and logo are registered trademarks of Building Research Establishment Ltd. Permission is given for this estimator to be copied without infringement of copyright for use only on projects where an EcoHomes assessment is carried out. Whilst every care is taken in preparing this estimator, BRE cannot accept responsibility for any inaccuracies or for consequential loss incurred as a result of such inaccuracies arising through the use of the estimator.

BREEAM Office
BRE
Garston
Watford WD25 9XX
Tel: 01923 664462
E-mail: ecohomes@bre.co.uk
Web site: www.ecohomes.org

EcoHomes 2006 Pre Assessment Estimator

Issue	Rear of 16 Hobb Lane - Chalet Bungalow	% of total score	Dwelling % of total score achieved	Location
Energy				
Ene 1	**Dwelling Emission Rate** Credits are awarded to achieve SAP 2005 CO_2 emissions as follows: • Less than or equal to 40 kg/m^2/yr OR • Less than or equal to 35 kg/m^2/yr OR • Less than or equal to 32 kg/m^2/yr OR • Less than or equal to 30 kg/m^2/yr OR • Less than or equal to 28 kg/m^2/yr OR • Less than or equal to 26 kg/m^2/yr OR • Less than or equal to 24 kg/m^2/yr OR • Less than or equal to 22 kg/m^2/yr OR • Less than or equal to 20 kg/m^2/yr OR • Less than or equal to 18 kg/m^2/yr OR • Less than or equal to 15 kg/m^2/yr OR • Less than or equal to 10 kg/m^2/yr OR • Less than or equal to 5 kg/m^2/yr OR • Less than or equal to 0 kg/m^2/yr OR • Less than or equal to -10 kg/m^2/yr Note: -10kg CO^2/m^2 allows for recognition of 'true zero' carbon solutions.	0.92 1.83 2.75 3.67 4.58 5.50 6.42 7.33 8.25 9.17 10.08 11.00 11.92 12.83 13.75	5.50 (max 13.75)	
Ene 2	**Building envelope performance** Up to 2 credits awarded where thermal performance based on the Heat Loss Parameter (HLP) method meets the following requirements: For new build: • where the HLP is less than or equal to 1.3 W/m^{2}K OR • where the HLP is less than or equal to 1.1 W/m^{2}K	0.92 1.83	0.92	

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

	For refurbishment: • where the HLP is less than or equal to 2.2 W/m^{2}K OR • where the HLP is less than or equal to 1.75 W/m^{2}K	0.92 1.83	(max 1.83)	
Ene 3	**Drying space** Provision of drying space	0.92	(max 0.92)	
Ene 4	**Eco Labelled white goods** Provision of eco labelled white goods with the following energy ratings: • All fridges, freezers, fridge-freezers with an A$^+$ rating • All washing machines, and dishwashers where supplied, with an A rating and washer dryers and tumble dryers with a rating of B or higher OR • No white goods provided but info on Eco labelling	 0.92 0.92 0.92	 0.92 (max 1.83)	
Ene 5	**Internal Lighting** • Where 40% dedicated low energy lights have been specified. OR • Where 75% dedicated low energy lights have been specified.	 0.92 1.83	 1.83 (max 1.83)	
Ene 6	**External Lighting** **Space lighting** • all space lighting is specifically designed to accommodate energy efficient light bulbs and/or dedicated fittings **Security lighting** • all intruder lighting to be 150 watts maximum and be fitted with PIR and day light sensor and • all other type of security lighting to accommodate CFLs or fluorescent strips only and be fitted with dawn to dusk sensors or timers	 0.92 0.92	 0.92 (max 1.83)	
Total Number of Energy Credits Achieved			10.69 (max 22.00)	

Transport

Tra 1	**Public Transport** **Urban and suburban areas** 80% of the development within: • 1000m of a 30 min peak and an hourly off peak service OR • 500m of a 15 min peak and a half hourly off peak service	 1.00 2.00	 1.00	

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

	Rural areas 80% of the development within: • 1000m of an hourly service OR • 500m of an hourly service OR a community bus service	1.00 2.00		(max 2.00)
Tra 2	**Cycle storage** Provision of cycle storage for: • 50% of dwellings OR • 95% or dwellings	1.00 2.00	2.00 (max 2.00)	
Tra 3	**Local Amenities** Proximity to local amenities: • Within 500m of a food shop and post box • Within 1000m of 5 of the following: food shop* postal facility, bank/ cash machine, pharmacy, primary school, medical centre, leisure centre, community centre, public house, children's play area, place of worship, outdoor open access public area • Safe pedestrian routes to the local amenities * if not used for the 1st credit	1.00 1.00 1.00	1.00 1.00	(max 3.00)
Tra 4	**Home office** Provision of space, and services, for a home office	1.00	(max 1.00)	
Total Number of Transport Credits Achieved			5 (max 8.00)	
Pollution				
Pol 1	**Insulation ODP and GWP** Specifying insulating materials, that avoid the use of ozone depleting substances and have a global warming potential (GWP) of less than 5 or more (and an ODP of zero), in either manufacture or composition, for the following elements: • Roof (incl. loft hatch) • Wall – internal and external (incl. all doors, lintels and all acoustic insulation). • Floor (incl. foundations) • Hot water cylinder (incl. pipe insulation and other thermal store)	0.91	0.91 (max 0.91)	

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

Pol 2	**NO_x emissions** 95% of dwellings throughout the development must be served by heating and hot water systems with an average NO_x emission rate of less than or equal to the levels listed below. • Less than or equal to 100 NO_x mg/kWh OR • Less than or equal to 70 NO_x mg/kWh OR • Less than or equal to 40 NO_x mg/kWh	 0.91 1.82 2.73	 1.82 (max 2.73)	
Pol 3	**Reduction of surface runoff** Where rainwater holding facilities and/or sustainable drainage techniques are used to provide attenuation of water run-off to either natural watercourses and/or municipal drainage systems, by 50%* in areas of low probability of flooding, 75%* in areas of medium flood risk and 100%* in areas of high flood risk, at peak times from: • Hard surface runoff • Roof runoff * Where a statutory body requires a greater attenuation then the higher requirement should be met in order to achieve these credits.	 0.91 0.91	 (max 1.82)	
Pol 4	**Renewable and Low Emission Energy Source** • Where evidence provided demonstrates that a feasibility study considering renewable and low emission energy has been carried out and the results implemented AND • Where evidence provided demonstrates that the first credit has been achieved and 10% of total energy demand for the development is supplied from local renewable, or low emission energy, sources* OR • Where evidence provided demonstrates that the first credit has been achieved and 15% of total energy demand for the development is supplied from local renewable, or low emission energy, sources*. * In line with the recommendations of the feasibility study.	 0.91 0.91 1.82	 0.91 (max 2.73)	
Pol 5	**Flood Risk Mitigation** • Where evidence provided demonstrates that the assessed development is located in a zone defined as having a low annual probability of flooding. OR • Where evidence provided demonstrates that the assessed development is located in a zone defined as having a medium annual probability of flooding and the ground level of the building, car parking and	 1.82 0.91	 0.91	

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

	access is above the design flood level for the site's location.		4.53 (max 1.82)	
Total Number of Pollution Credits Achieved			(max 10.00)	
Materials				
Mat 1	**Environmental Impact of Materials** The following elements obtaining an A rating from the Green Guide for Housing: • Roof • External walls • Internal walls - party walls and internal partitions • Floors • Windows • External surfacing • Boundary protection	 1.35 1.35 1.35 1.35 0.90 0.45 0.45	 1.35 1.35 1.35 1.35 0.90 (max 7.23)	
Mat 2	**Responsible sourcing of Materials: Basic Building Elements** Where the majority of materials in the following basic building elements are responsibly sourced: 1. Frame 2. Ground Floor 3. Upper floors (including any loft boarding) 4. Roof (structure and cladding) 5. External walls (including external cladding) 6. Internal walls (including internal partitions) 7. Foundations/substructure 8. Staircase (including the tread, rises and stringers)	 0.90 - 2.71	 1.90 (max 2.71)	
Mat 3	**Responsible sourcing of Materials: Finishing Elements** Where the majority of materials in the following secondary building and finishing elements are responsibly sourced: 1. Stair (including handrails, balustrades, banisters, other guarding/rails (excluding staircase)) 2. Window (including sub-frames, frames, boards, sills) 3. External & internal door: (including sub-frames, frames, linings, door) 4. Skirting (including architrave, skirting board & rails) 5. Panelling (including any other trim) 6. Furniture (including fitted; kitchen, bedroom, and bathroom) 7. Facias (soffit boards, bargeboards, gutter boards, others) 8. Any other significant use	 0.90 - 1.35	 1.80 (max 1.35)	

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

Mat 4	**Recyling Facilities** Recycling of Household waste • Provision of internal storage only OR • Provision of external storage (or LA collection) only OR Provision of internal AND external storage (or LA collection)	 0.90 0.90 2.71	 0.90 (max 2.71)	
Total Number of Materials Credits Achieved			10.20 (max 14.00)	
Water				
Wat 1	**Internal Potable Water Use** • Less than or 52 m^3 per bedspace per year OR • Less than or equal to 47 m^3 per bedspace per year OR • Less than or equal to 42 m^3 per bedspace per year OR • Less than or equal to 37 m^3 per bedspace per year OR • Less than or equal to 32 m^3 per bedspace per year	 1.67 3.33 5.00 6.66 8.33	 5.00 (max 8.33)	
Wat 2	**External Potable Water Use** Rain water collection system for watering gardens and landscaped areas	 1.67	 1.67 (max 1.67)	
Total Number of Water Credits Achieved			6.67 (max 10.00)	
Land Use and Ecology				
Eco1	**Ecological value of site** • Building on land which is inherently of low ecological value	 1.33		(max 1.33)
Eco2	**Ecological enhancement** • Enhancing the ecological value of the site through consultation with an accredited expert	 1.33	1.33	(max 1.33)
Eco3	**Protection of ecological features** • Ensuring the protection of any existing ecological features on the site	 1.33	1.33	(max 1.33)

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

Eco4	**Change of ecological value of site** • A change of between –9 and –3 species OR • A change of between –3 and +3 species OR • A change between +3 and +9 species OR • A change of greater than +9 species	1.33 2.67 4.00 5.33	2.67	(max 5.33)
Eco5	**Building footprint** • Where the total combined Floor area: Footprint ratio for all houses on the site is greater than 2.5:1 AND • Where the total combined Floor area: Footprint ratio for all flats on the site is greater than 3.5:1 OR • Where the total combined Floor area: Footprint ratio for all dwellings on the site is greater than 3.5:1	1.33 2.67	1.33 (max 2.67)	
Total Number of Land Use and Ecology Credits Achieved			6.66 (max 12.00)	

Health and Well Being

Hea1	**Daylighting** Provision of adequate daylighting, according to BS 8206:pt2 in: • In the kitchen • In living rooms, dining rooms and studies • View of sky in all above rooms	1.75 1.75 1.75	1.75 1.75 (max 5.25)	
Hea 2	**Sound Insulation** Up to 4 credits where pre-completion testing is carried out to comply or improve on performance standards in Approved Document E (2003 Edition, Building Regulations England and Wales).	1.75-7.00	4 (max 7.00)	
Hea3	**Private space** Provision of private or semi private space	1.75	1.75 (max 1.75)	
Total Number of Health and Well Being Credits Achieved			9.25 (max 14.00)	

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

Management				
Man 1	**Home User Guide** Where evidence can be provided to demonstrate that there is provision, in each home, of a simple guide that covers information to the 'non-technical' tenant/occupant on: • The environmental performance of their home • Information relating to the site and surroundings	2.00 1.00	2.00 1.00 (max 3.00)	
Man 2	**Considerate Constructors** • Demonstrate a commitment to comply with best practice site management principles. OR • Demonstrate a commitment to go significantly beyond best practice site management principles.	1.00 2.00	1.00	(max 2.00)
Man 3	**Construction Site Impacts** • Evidence that demonstrates a commitment and a strategy to monitor, sort and recycle construction waste on site. AND • Evidence that demonstrates that 2 or more of a-f listed below are achieved. OR • Evidence that demonstrates that 4 or more of a-f are achieved: a. monitor and report CO_2 or energy arising from site activities b. monitor and report on CO_2 or energy arising from transport to and from site c. monitor water consumption from site activities d. adopt best practice policies in respect of air (dust) pollution arising from the site e. adopt best practice policies in respect of water (ground and surface) pollution occurring on the site f. 80% of site timber is reclaimed, reused or responsibly sourced.	1.00 1.00 2.00	1.00	(max 3.00)
Man 4	**Security** • Commitment to work with an Architectural Liaison Officer and achieve Secured by Design award. • Security standards for external doors and windows, to achieve a minimum of either: - LPS1175SR1 (All doors and windows) OR - PAS24-1 (All external pedestrian door-sets	1.00 1.00	1.00	

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

	falling within scope of PAS24-1) AND BS7950 (All windows falling into the scope of BS7950)		(max 2.00)	
Total Number of Management Credits Achieved			6 (max 10.00)	
Total in all Sections			58.42 (max 100.00)	

Using the Pre Assessment Estimator

This Pre Assessment Estimator should only be used to estimate the rating that might be achieved under a formal EcoHomes assessment, prior to the appointment of a licensed assessor.

Complete the estimator by going through the credits and marking those which have been achieved. The EcoHomes score is awarded on the basis of the total percentage of credits achieved as indicated in the table below.

	Rating	Score (%)
	Pass	36
	Good	48
	Very Good	58
	Excellent	70

Note that the estimated score must only be used as guidance to the design team and cannot be used to demonstrate compliance with BREEAM. BRE cannot accept responsibility for any inaccuracies or for consequential loss incurred as a result of such inaccuracies arising through the use of the estimator.

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE

For further information about EcoHomes including a contact list of licensed assessors please contact:

The BREEAM Office
BRE
Garston
Watford
WD25 9XX

Tel: 01923 664462
Fax: 01923 664103
e-mail: ecohomes@bre.co.uk
web site: http://www.ecohomes.org

© Building Research Establishment Ltd, April 2006
EcoHomes is a Registered Trademark of BRE