



Abacusenergy

savings that add up —●●●●●—

Report Reference: 0280
Site Registration:
Site Name: Warblington Road
Assessor Number: STRO008204
Company: Abacus Energy (UK) Ltd
Assessor: Toby Whiting



Site Details

Site Name: Warblington Road
Site Registration:
Site Address: Warblington Road
Emsworth
City/Town:
County: Hampshire
Postcode: PO10 7HQ
No. of Dwellings: 1
No. of Dwelling Types: 0
Planning Authority: Havant Borough Council
Funding Body:

Assessor Details

Company: Abacus Energy (UK) Ltd
Assessor Name: Toby Whiting
Cert Number: STRO008204
Address: 10 Mancroft Avenue
Stubbington
City/Town: Fareham
County: Hampshire
Postcode: PO14 2BD
Tel: 01329 313079
Email: toby@abacusenergyuk.com

Client Details

Company:
Contact Name:
Job Title:
Email:
Tel:
Address:

City/Town:
County:
Postcode:

Architect Details

Company: Small Architecture
Contact Name: Johanna Foster
Job Title: Director
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Address: 46 Edmund Road

Southsea
City/Town: Portsmouth
County: Hampshire
Postcode: PO4 0HZ

Developer Details

Company:
Contact Name:
Job Title:
Email:
Tel:
Address:

City/Town:
County:
Postcode:



Dwelling ID	Plot No.	Address	Social Unit
1	1	10 Warblington Road	No

Development Summary & Ratings

Dwelling ID	Dwelling Type	Description	Level	Score
		10Warblington Road	3	60.54

Deviations from Standard

No deviations from standard



Score Sheet for Warblington Road																																					
	ENE									WAT		MAT		SUR		WAS		POL		HEA				MAN				ECO				Summary					
Dwelling ID	1	2	3	4	5	6	7	8	9	1	2	1	2	3	1	2	1	2	3	1	2	1	2	3	4	1	2	3	4	1	2	3	4	5	Score	Level	
1	3	7	6	0	1	2	2	0	2	1	3	1	1	0	0	0	2	4	0	1	1	3	2	4	1	4	3	0	0	0	1	0	1	2	0	60.54	3

Summary Score Sheet

Dwelling Type: 10 Warblington Road

Dwelling ID: 1

		Score Assessment					Weighting Factor	Points Score
		Credit Score	Credits Available	Sub Total	Credits Available	%		
Energy & CO2 Emissions								
ENE 1	Dwelling Emission Rate	3	10	18.6	31	60	36.4	21.84
ENE 2	Fabric Energy Efficiency	7.6	9					
ENE 3	Energy Display Device	0	2					
ENE 4	Drying Space	1	1					
ENE 5	Energy Labelled White Goods	2	2					
ENE 6	External Lighting	2	2					
ENE 7	Low or Zero Carbon Energy Technologies	0	2					
ENE 8	Cycle Storage	2	2					
ENE 9	Home Office	1	1					
Water								
WAT 1	Internal Water Use	3	5	4	6	66.67	9	6
WAT 2	External Water Use	1	1					
Materials								
MAT 1	Environmental Impact of Materials	11	15	11	24	45.83	7.2	3.3
MAT 2	Responsible Sourcing (Basic Building Elements)	0	6					
MAT 3	Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run-off								
SUR 1	Management of Surface Water Run-Off from Site	0	2	2	4	50	2.2	1.1
SUR 2	Flood Risk	2	2					
Waste								
WAS 1	Household Waste Storage and Recycling Facilities	4	4	5	8	62.5	6.4	4
WAS 2	Construction Site Waste Management	0	3					
WAS 3	Composting	1	1					
Pollution								
POL 1	Global Warming Potential of Insulants	1	1	4	4	100	2.8	2.8
POL 2	NOx Emissions	3	3					
Health & Wellbeing								
HEA 1	Daylighting	2	3	11	12	91.67	14	12.83
HEA 2	Sound Insulation	4	4					
HEA 3	Private Space	1	1					
HEA 4	Lifetime Homes	4	4					
Management								
MAN 1	Home User Guide	3	3	3	9	33.33	10	3.33
MAN 2	Considerate Constructors Scheme	0	2					
MAN 3	Construction Site Impacts	0	2					
MAN 4	Security	0	2					
Ecology								
ECO 1	Ecological Value of Site	1	1	4	9	44.44	12	5.33
ECO 2	Ecological Enhancement	0	1					
ECO 3	Protection of Ecological Features	1	1					
ECO 4	Change of Ecological Value of Site	2	4					
ECO 5	Building Footprint	0	2					
Level Achieved: 3		Total Points Scored: 60.54						

Evidence for ENE 1 (Dwelling Emission Rate)

Improvement above Part L Building Regulations 2010. 3 credits allocated
See Abacus Energy SAP 2010 calculation 0280

Evidence for ENE 2 (Fabric Energy Efficiency)

7.6 credits allocated
See Abacus Energy SAP 2010 calculation 0280

Evidence for ENE 3 (Energy Display Device)

Credit not sought, no compliant energy display device.

Evidence for ENE 4 (Drying Space)

Compliant external drying space
Drawings to show a minimum 6m drying line with permanent fixtures & fittings either in the garden (footings for rotary line) or in a heated room with a minimum extract rate of 30l/s (bathroom over bath)

Evidence for ENE 5 (Energy Labelled White Goods)

A+ rated fridge & freezers or fridge/freezer
A rated washing machine and dishwasher, AND EITHER a tumble dryer (a washer-dryer would be an acceptable alternative to a standalone tumble dryer) with a B rating or where a tumble dryer is not provided, the EU Energy Efficiency Labelling Scheme Information will be provided.

Client will provide A+ rated fridges & freezers (or fridge/freezer)
and
Will provide A rated washing machines and dishwashers

Evidence for ENE 6 (External Lighting)

Compliant space lighting
Compliant security lighting

drawing to show the locations of compliant space and security lighting.
Please Note:

Space Lighting

Where all external space lighting, including lighting in common areas, is provided by dedicated energy efficient fittings with appropriate control systems.

Security Lighting

Where all security lighting is designed for energy efficiency and is adequately controlled such that:

All burglar security lights have:

- A maximum wattage of 150 W

AND

- Movement detecting control devices (PIR)

AND

- Daylight cut-off sensors

All other security lighting:

- Is provided by dedicated energy efficient fittings

AND

- Is fitted with daylight cut-off sensors OR a time switch

Evidence for ENE 7 (Low or Zero Carbon Energy Technologies)

Credit(s) not sought or contribution of low or zero carbon technologies less than 10%

Evidence for ENE 8 (Cycle Storage)

2 or 3 bedroom dwelling - Storage for 2 cycles per dwelling

Drawings to show:

Location, Type and Size of Storage (for 2 cycles, 2m long by 1.5m wide with an additional 1msq in shed for garden tools.

<[http://www.thecodestore.co.uk/shop/details/366/79/energy-and-co2-emissions/ene8-cycle-storage/the-code-shed-bike-and-tool-storage/the-code-shed---](http://www.thecodestore.co.uk/shop/details/366/79/energy-and-co2-emissions/ene8-cycle-storage/the-code-shed-bike-and-tool-storage/the-code-shed---2)>

Specification:

Convenient access (not through garage)

Lockable ('Sold Secure' Silver standard padlock with a hasp and staple that are coach bolted through the structure)

Secure fixing (a ground anchor to 'Sold Secure' Silver Standard) or stand (such as 'Sheffield Hoop')

<<http://www.thecodestore.co.uk/shop/category/76/energy-and-co2-emissions/ene8-cycle-storage/secure-fixings-&-secure-stands.html>>**Evidence for ENE 9 (Home Office)**

Compliant home office

Drawings to show at least 1.8m wall length to allow a desk, chair and filing cabinet or bookshelf to be installed with spec to move around the front and side of the desk and use the chair and filing cabinet appropriately and safely.

In addition the following must be shown:

2 double Power sockets

2 Telephone points (or double phone point) or one telephone point where cable or broadband is available

Evidence for WAT 1 (Internal Water Use)

Internal water use less than or equal to 105 litres per person per day

The following have been assumed:

Dish Washer 1.25l pps

All other fittings are as specified on BRE WAT1 Calculation tool dated 18/11/14

Evidence for WAT 2 (External Water Use)

Compliant communal rainwater collection system

A 200L rainwater butt is to be used which will adhere to the following criteria:

- No open access at the top of the collector (a child-proof lid is allowed)
- Provision of a tap or other arrangement for drawing off water
- Connection to the rainwater downpipes with an automatic overflow into the conventional rainwater drainage system
- A means of detaching the rainwater downpipe and access provision to enable the interior to be cleaned
- Where the collection system is to be sited outside, and not buried, it must be stable and adequately supported; the material used for the container shall be durable and opaque to sunlight

Evidence for MAT 1 (Environmental Impact of Materials)

Mandatory requirements met: At least 3 elements rated A+ to D, 11 credits scored

11 Credits have been assumed at this stage based on the detailed information provided.

The assumption will be checked by calculation once the materials have been sourced.

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements))

Zero credits or credits not sought

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements))

Zero credits or credits not sought

Evidence for SUR 1 (Management of Surface Water Run-Off from Site)

Mandatory Met: Peak rate of run-off and annual volume of run-off is no greater for the developed than for the pre-development. The system has also been designed for local drainage system failure.

The mandatory element will be achieved

Evidence for SUR 2 (Flood Risk)

Low flood risk - zone 1

A flood risk report is yet to be received, however, the site is believed to be in a zone of low flood risk.

Evidence for WAS 1 (Household Waste Storage and Recycling Facilities)

Mandatory requirements met: Adequate storage of household waste with accessibility in line with checklist WAS 1. Local authority collection: After collection sorting with appropriate internal storage of recyclable materials

Drawings to show:

Location of internal binstore in kitchen.

Internal storage must be at least 3 separate bins holding at least 7 litres with an overall minimum of 30 litres

<<http://www.thecodestore.co.uk/shop/category/25/waste/was1-storage-of-non-recyclable-waste-and-recyclable-household-waste.htm>>

Checklist IDP to be confirmed by client

Evidence for WAS 2 (Construction Site Waste Management)

Credit not sought

Evidence for WAS 3 (Composting)

Individual composting facility/facilities

Compost bin to be shown on drawings and must be checklist IDP compliant.

<<http://www.thecodestore.co.uk/shop/category/221/waste/was-3-composting/compost-bins.html>>

Evidence for POL 1 (Global Warming Potential of Insulants)

All insulants have a GWP of less than 5

Most insulants have a Global Warming Potential of less than 5, it is assumed that the developer will be vigilant in this area

Builder to complete POL1 Checklist

Evidence for POL 2 (NOx Emissions)

NOx emissions less than or equal to 40mg/kWh

The Boiler will be a Vailant EcoTec Plus 831

Evidence for HEA 1 (Daylighting)

Kitchen: Average daylight factor of at least 2%

Living room: Average daylight factor of at least 1.5%

Dining room: Average daylight factor of at least 1.5%

Home office: Average daylight factor of at least 1.5%

Daylight Calculations to be completed by Abacus Energy

Evidence for HEA 2 (Sound Insulation)

Detached property

Detached Dwelling

Evidence for HEA 3 (Private Space)

Individual private space provided.

Samll Architecture Drawing 13005/01 show private space

Evidence for HEA 4 (Lifetime Homes)

All criteria of Lifetime Homes in line with all 16 principals of Lifetime Homes

Evidence for MAN 1 (Home User Guide)

All criteria inline with checklist MAN 1 Part 1 - Operational Issues will be met
All criteria inline with checklist MAN 1 Part 2 - Site and Surroundings will be met
Home user guide to be completed by Abacus Energy/Clients

Evidence for MAN 2 (Considerate Constructors Scheme)

Evidence for MAN 3 (Construction Site Impacts)

Evidence for MAN 4 (Security)

Credit not sought or no secure by design undertaken

Evidence for ECO 1 (Ecological Value of Site)

Land of low ecological value, achieved through checklist ECO 1. Development site has been identified as low ecological value by a suitably qualified ecologist
Eco1 Checklist to be completed

Evidence for ECO 2 (Ecological Enhancement)

Credit not sought or no compliant enhancement

Evidence for ECO 3 (Protection of Ecological Features)

Land of low ecological value as identified under ECO 1
Eco1 Checklist to be completed

Evidence for ECO 4 (Change of Ecological Value of Site)

Neutral: Greater than -3 and less than or equal to +3
Eco1 Checklist to be completed

Evidence for ECO 5 (Building Footprint)

Credit not sought

Assessor Declaration

I Toby Whiting, can confirm that I have compiled this report to the best of my ability, I have based all findings on the information that is referenced within this report, and that this report is appropriate for the registered site.

To the best of my knowledge all the information contained within this report is correct and accurate. I have within my possession all the reference material that relates to this report, which is available for inspection by the client, the clients representative or Stroma Certification for Quality Assurance monitoring.

Signed:



Toby Whiting
Abacus Energy (UK) Ltd
16 February 2015

Information about Code for Sustainable Homes

The Code for Sustainable Homes (the Code) is an environmental assessment method for rating and certifying the performance of new homes. It is a national standard for use in the design and construction of new homes with a view to encouraging continuous improvement in sustainable home building. The Code is based on EcoHomes®.

It was launched in December 2006 with the publication of 'Code for Sustainable Homes: A stepchange in sustainable home building practice' (Communities and Local Government, 2006), and became operational in England from April 2007.

The Code for Sustainable Homes covers nine categories of sustainable design. Each category includes a number of environmental issues. Each issue is a source of impact on the environment which can be assessed against a performance target and awarded one or more credits. Performance targets are more demanding than the minimum standards needed to satisfy Building Regulations or other legislation. They represent good or best practice, are technically feasible, and can be delivered by the building industry. The issues and categories are as follows:

- Energy & CO2 Emissions
 - Dwelling Emission Rate
 - Building Fabric
 - Internal Lighting
 - Drying Space
 - Energy Labelled White Goods
 - External Lighting
 - Low or Zero Carbon Technologies
 - Cycle Storage
 - Home Office
- Water
 - Internal Water Use
 - External Water Use
- Materials
 - Environmental Impact of Materials
 - Responsible Sourcing of Materials - Basic Building Elements
 - Responsible Sourcing of Materials - Finishing Elements
- Surface Water Run-off
 - Management of Surface Water Run-off from the Development
 - Flood Risk
- Waste
 - Storage of Non-Recyclable Waste and Recyclable Household Waste
 - Construction Site Waste Management
 - Composting
- Pollution
 - Global Warming Potential of Insulants
 - NOx Emissions

- Health & Wellbeing
 - Daylighting
 - Sound Insulation
 - Private Space
 - Lifetime Homes
- Management
 - Home User Guide
 - Considerate Constructors Scheme
 - Construction Site Impacts
 - Security
- Ecology
 - Ecological Value of Site
 - Ecological Enhancement
 - Protection of Ecological Features
 - Change in Ecological Value of Site
 - Building Footprint

The Code assigns one or more performance requirements (assessment criteria) to all of the above environmental issues. When each performance requirement is achieved a credit is awarded (with the exception of the four mandatory requirements which have no associated credits). The total number of credits available to a category is the sum of credits available for all the issues within it.

Mandatory minimum performance standards are set for some issues. For four of these, a single mandatory requirement is set which must be met, *whatever Code level rating is sought*. Credits are not awarded for these issues. Confirmation that the performance requirements are met for all four is a minimum entry requirement for achieving a level 1 rating. The four un-credited issues are:

- Environmental Impacts of Materials
- Management of Surface Water Run-off from Developments
- Storage of Non-Recyclable Waste and Recyclable Household Waste
- Construction Site Waste Management

If the mandatory minimum performance *standard is met* for the four un-credited issues, four further mandatory issues need to be considered. These are agreed to be such important issues that separate Government policies are being pursued to mitigate their effects. For two of these, credits are awarded for every level of achievement recognised within the Code, and minimum mandatory standards increase with increasing rating levels.

The two issues with increasing mandatory minimum standards are:

- Dwelling Emission Rate
- Indoor Water Use

For one issue a mandatory requirement at Level 5 or 6:

- Fabric Energy Efficiency

The final issue with a mandatory requirement for Level 6 of the Code is:

- Lifetime Homes

Further credits are available on a free-choice or tradable basis from other issues so that the developer may choose how to add performance credits (converted through weighting to percentage points) achieve the rating which they are aiming for.

The environmental impact categories within the Code are not of equal importance. Their *relative* value is conveyed by applying a consensus-based environmental weighting factor (see details below) to the sum of all the raw credit scores in a category, resulting in a score expressed as percentage points. The points for each category add up to 100.

The weighting factors used in the Code have been derived from extensive studies involving a wide range of stakeholders who were asked to rank (in order of importance) a range of environmental impacts. Stakeholders included international experts and industry representatives.

It is also important to note that achieving a high performance in one category of environmental impact can sometimes result in a lower level of performance for another. For instance, if biomass is used to meet heating demands, credits will be available for performance in respect of energy supplied from a renewable source, but credits cannot be awarded for low NOX emission. It is therefore impossible to achieve a total percentage points score of 100.

The Code uses a rating system of one to six stars. A star is awarded for each level achieved. Where an assessment has taken place by where no rating is achieved, the certificate states that zero stars have been awarded:

Code Levels	Total Points Score (Equal to or Greater Than)
Level 1 ★☆☆☆☆	36 Points
Level 2 ★★☆☆☆	48 Points
Level 3 ★★★☆☆	57 Points
Level 4 ★★★★☆	68 Points
Level 5 ★★★★★	84 Points
Level 6 ★★★★★★	90 Points

Formal assessment of dwellings using the Code for Sustainable Homes may only be carried out using Certified assessors, who are qualified 'competent persons' for the purpose of carrying out Code assessments.

Energy & CO2 Emissions

ENE 1:Dwelling Emission Rate

Available Credits:10

Aim:To limit CO2 emissions arising from the operation of a dwelling and its services in line with current policy on the future direction of regulations.

ENE 2:Fabric Energy Efficiency

Available Credits:9

Aim:To improve fabric energy efficiency performance thus future-proofing reductions in CO2 for the life of the dwelling.

ENE 3:Energy Display Device

Available Credits:2

Aim:To promote the specification of equipment to display energy consumption data, thus empowering dwelling occupants to reduce energy use.

ENE 4:Drying Space

Available Credits:1

Aim:To promote a reduced energy means of drying clothes.

ENE 5:Energy Labelled White Goods

Available Credits:2

Aim:To promote the provision or purchase of energy efficient white goods, thus reducing the CO2 emissions from appliance use in the dwelling.

ENE 6:External Lighting

Available Credits:2

Aim:To promote the provision of energy efficient external lighting, thus reducing CO2 emissions associated with the dwelling.

ENE 7:Low or Zero Carbon Technologies

Available Credits:2

Aim:To limit CO2 emissions and running costs arising from the operation of a dwelling and its services by encouraging the specification of low and zero carbon energy sources to supply a significant proportion of energy demand.

ENE 8:Cycle Storage

Available Credits:2

Aim:To promote the wider use of bicycles as transport by providing adequate and secure cycle storage facilities, thus reducing the need for short car journeys and the associated CO2 emissions.

ENE 9:Home Office

Available Credits:1

Aim:To promote working from home by providing occupants with the necessary space and services thus reducing the need to commute.

Water

WAT 1:Indoor Water Use

Available Credits:5

Aim:To reduce the consumption of potable water in the home from all sources, including borehole well water, through the use of water efficient fittings, appliances and water recycling systems.

WAT 2:External Water Use

Available Credits:1

Aim:To promote the recycling of rainwater and reduce the amount of mains potable water used for external water uses.

Materials

MAT 1:Environmental Impact of Materials

Available Credits:15

Aim:To specify materials with lower environmental impacts over their life-cycle.

MAT 2:Responsible Sourcing of Materials - Basic Building Elements

Available Credits:6

Aim:To promote the specification of responsibly sourced materials for the basic building elements.

MAT 3:Responsible Sourcing of Materials - Finishing Elements

Available Credits:3

Aim:To promote the specification of responsibly sourced materials for the finishing elements.

Surface Water Run-off

SUR 1:Management of Surface Water Run-off from developments

Available Credits:2

Aim: To design surface water drainage for housing developments which avoid, reduce and delay the discharge of rainfall run-off to watercourses and public sewers using SuDS techniques. This will protect receiving waters from pollution and minimise the risk of flooding and other environmental damage in watercourses.

SUR 2:Flood Risk

Available Credits:2

Aim: To promote housing development in low flood risk areas, or to take measures to reduce the impact of flooding on houses built in areas with a medium or high risk of flooding.

Waste

WAS 1:Storage of non-recyclable waste and recyclable household waste

Available Credits:4

Aim: To promote resource efficiency via the effective and appropriate management of construction site waste.

WAS 2:Construction Site Waste Management

Available Credits:3

Aim: To promote resource efficiency via the effective and appropriate management of construction site waste.

WAS 3:Composting

Available Credits:1

Aim: To promote the provision of compost facilities to reduce the amount of household waste sent to landfill.

Pollution

POL 1:Global Warming Potential of Insulants

Available Credits:1

Aim: To promote the reduction of emissions of gases with high GWP associated with the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials.

POL 2:NOx Emissions

Available Credits:3

Aim: To promote the reduction of nitrogen oxide (NOX) emissions into the atmosphere.

Health & Wellbeing

HEA 1:Daylighting

Available Credits:3

Aim: To promote good daylighting and thereby improve quality of life and reduce the need for energy to light the home.

HEA 2:Sound Insulation

Available Credits:4

Aim: To promote the provision of improved sound insulation to reduce the likelihood of noise complaints from neighbours.

HEA 3:Private Space

Available Credits:1

Aim: To improve quality of life by promoting the provision of an inclusive outdoor space which is at least partially private.

HEA 4:Lifetime Homes

Available Credits:4

Aim: To encourage the construction of homes that are accessible and easily adaptable to meet the changing needs of current and future occupants.

Management

MAN 1:Home User Guide

Available Credits:3

Aim: To promote the provision of guidance enabling occupants to understand and operate their home efficiently and make the best use of local facilities.

MAN 2:Considerate Constructors Scheme

Available Credits:3

Aim: To promote the environmentally and socially considerate, and accountable management of construction sites.

MAN 3:Construction Site Impacts

Available Credits:2

Aim: To promote construction sites managed in a manner that mitigates environmental impacts.

MAN 4:Security

Available Credits:2

Aim: To promote the design of developments where people feel safe and secure- where crime and disorder, or the fear of crime, does not undermine quality of life or community cohesion.

Ecology

ECO 1:Ecological value of site

Available Credits:1

Aim: To promote development on land that already has a limited value to wildlife, and discourage the development of ecologically valuable sites.

ECO 2:Ecological enhancement

Available Credits:1

Aim: To enhance the ecological value of a site.

ECO 3:Protection of ecological features

Available Credits:1

Aim: To promote the protection of existing ecological features from substantial damage during the clearing of the site and the completion of construction works.

ECO 4:Change in ecological value of site

Available Credits:4

Aim: To minimise reductions and promote an improvement in ecological value.

ECO 5:Building footprint

Available Credits:2

Aim: To promote the most efficient use of a building's footprint by ensuring that land and material use is optimised across the development.

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