



Feed In Tariff (FIT)

Summary:

The Feed In Tariff (FIT) scheme aims to provide financial support to individuals, communities and businesses to encourage them to implement renewable/low carbon electrical generating technologies.

The scheme will effectively pay an elevated rate for all electricity produced on-site (whether exported or not) in addition to any savings from electricity they would have purchased.

How it works:

The scheme will come into operation on the 1st April 2010, although MCS compliant schemes completed after 15th July 2009 are eligible for the scheme as well. Payments through the FIT tariff are tax free for the duration of the scheme.

The scheme consists of two elements:

Generation Tariff:

The generation tariff is the amount paid for every metered kWh of electricity generated on-site. This is paid regardless of whether the electricity is used on-site or is exported

Export Tariff:

The export tariff is the amount paid per kWh of electrical energy that is exported from the site (e.g. to the national grid). For larger installations this is metered, where as for smaller installations it is assumed as a set proportion of the generated electricity over the year. The standard tariff is £0.03/kWh, although the site may opt out and sell their electricity on the open market (for larger sites).

- To be eligible for the FIT, the technology must be MCS accredited and installed by an MCS accredited installer (unless accreditation has been achieved under the *Renewable Obligation* process).
- The FIT payment rates start high, although these will decrease over the lifetime of the scheme as the cost of renewable installations is expected to reduce accordingly. However, in order to stimulate early adoption of the scheme, the current rate at time of sign-up will be maintained over the life of the tariff. All rates are inflation linked.
- The scheme currently support Photovoltaics, Wind and Hydro up to 5MW in size, with Anaerobic Digestion and MicroCHP* also included (although the latter is a pilot for the first 30,000 units only). New technologies and tariffs will be considered under scheme reviews.
- Ofgem will administer the feed-in tariff scheme and suppliers will be responsible to paying the reward to their customers.
- Current Grant schemes such as the Low Carbon Buildings Programme, CERT and CSEP will *currently still be available* and can be claimed as well as the RHI.

Tariff levels for Feed In Tariff

| Energy Source | Scale | Tariff (p/kWh) | Duration (years) |
|---|----------------|----------------|------------------|
| Anaerobic digestion | ≤250kW | 14.0 | 20 |
| Anaerobic digestion | >250kW - 500kW | 13.0 | 20 |
| Anaerobic digestion | >500kW | 9.4 | 20 |
| Hydro | ≤15 kW | 20.9 | 20 |
| Hydro | >15 - 100kW | 18.7 | 20 |
| Hydro | >100kW - 2MW | 11.5 | 20 |
| Hydro | >2MW - 5MW | 4.7 | 20 |
| Micro-CHP | <2 kW | 10.5 | 10 |
| Solar PV | ≤4 kW new | 37.8 | 25 |
| Solar PV | ≤4 kW retrofit | 43.3 | 25 |
| Solar PV | >4-10kW | 37.8 | 25 |
| Solar PV | >10 - 50kW | 32.9 | 25 |
| Solar PV | >50 - 150kW | 19.0 | 25 |
| Solar PV | >150 - 250kW | 15.0 | 25 |
| Solar PV | >250kW - 5MW | 8.5 | 25 |
| Solar PV | Standalone | 8.5 | 25 |
| Wind | ≤1.5kW | 36.2 | 20 |
| Wind | >1.5 - 15kW | 28.0 | 20 |
| Wind | >15 - 100kW | 25.3 | 20 |
| Wind | >100 - 500kW | 19.7 | 20 |
| Wind | >500kW - 1.5MW | 9.9 | 20 |
| Wind | >1.5MW - 5MW | 4.7 | 20 |
| Existing generators transferred from RO | | 9.4 | to 2027 |

Further Information

- http://www.decc.gov.uk/en/content/cms/meeting_energy/renewable_ener/feedin_tariff/feedin_tariff.aspx
- <http://www.energysavingtrust.org.uk/Generate-your-own-energy/Sell-your-own-energy/Feed-in-Tariff-scheme>



Renewable Heat Incentive (RHI)

Summary:

The Renewable Heat Incentive (RHI) scheme aims to provide financial support to individuals, communities and businesses to encourage them to implement renewable/low carbon technologies *in-place/instead* of conventional heating systems (fossil fuelled). It effectively acts as a 'Feed-In-Tariff' for heating technologies.

How it works:

On 10th March 2011 DECC released final details of how the long-awaited Renewable Heat Incentive (RHI) will be implemented:

Phased scheme with two key phases:

- o 1st phase scheduled to come into operation July 2011 – will comprise tariff payments for non-domestic installations and Renewable Heat Premium Payments for the domestic sector
- o 2nd phase will include tariff payments for domestic sector and provide further response to feedback from 1st phase - tariff implementation for domestic schemes has been delayed to coincide with the Green Deal for Homes

- People in receipt of the Renewable Heat Premium Payments will be able to receive long term RHI tariff support once these tariffs are introduced as will anybody who has installed an eligible installation since 15th July 2009.
- The RHI will be funded from general Government spending, not through the previously proposed RHI levy
- RHI payments to be claimed by, and paid to, the owner of the equipment. The RHI will be available to householders, local authorities and social landlords as well as the public, industrial and commercial sectors.
- For small and medium-sized installations (up to and including 45kWth), both installers and equipment to be certified *under the Microgeneration Certification Scheme (MCS)* or equivalent standard, helping to ensure quality assurance and consumer protection. For installations larger than 45kWth, OFGEM will verify eligibility based on the required documentation provided by RHI applicants as part of the accreditation process.
- Heat output to be metered and the support calculated from the amount of useful heat used for eligible purposes, multiplied by the tariff level. 'Useful Heat' is to be determined by OFGEM.
- Domestic installations will be required to be for well insulated homes, based on Energy Performance Certificate – specific details not yet available.
- RHI payments to be claimed by, and paid to, the owner of the heat installation or producers of biomethane for injection (non-domestic but domestic expected to be similar)
- The renewable heat installation will be the sole fixed heating installation in the property (not counting any immersion heater that may form part of such installation).
- For domestic schemes, there will be a focus on people living off the gas grid, where fossil fuels like heating oil are both more expensive and have a higher carbon content – specific details not yet available.

Technologies Supported at outset:

- Biomass Boilers
- Energy From Waste (organic waste)
- Ground and Water Source Heat Pumps (minimum CoP of 2.9)
- Deep Geothermal
- Solar Thermal (Solar Water Heating) – up to 200kWth
- Biogas – up to 200kWth
- Biomethane Injection into the grid
- Renewable Combined Heat and Power

Technologies NOT supported at outset – to be reviewed in 2012:

- Air Source Heat Pumps
- Direct Air Heating (Renewable Fuelled)
- Bioliqum (Biofuels)

Excluded Technologies:

- Co-firing biomass with fossil fuel (within single piece of equipment)
- Exhaust Air Heat Pumps
- Transpired Solar Thermal Panels
- Fossil Fuel CHP
- Waste Heat from Fossil Fuel

Tariff levels for Renewable Heat Incentives

| Tariff name | Eligible technology | Eligible sizes | Tariff rate (pence/kWh) | Tariff duration (Years) | Support calculation |
|---------------------|--|---|----------------------------|-------------------------|---|
| Small biomass | Solid biomass; Municipal Solid Waste (incl. CHP) | Less than 200 kWth | Tier 1: 7.6 Tier 2: 1.9 | 20 | Metering Tier 1 applies annually up to the Tier Break, Tier 2 above the Tier Break. The Tier Break is: installed capacity x 1,314 peak load hours, i.e.: kWth x 1,314 |
| Medium biomass | | 200 kWth and above; less than 1,000 kWth | Tier 1: 4.7 Tier 2: 1.9 | | |
| Large biomass | | 1,000 kWth and above | 2.6 | | |
| Small ground source | Ground-source heat pumps; Water-source heat pumps; deep geothermal | Less than 100 kWth | 4.3 | 20 | Metering |
| Large ground source | | 100 kWth and above | 3 | | |
| Solar thermal | Solar thermal | Less than 200 kWth | 8.5 | 20 | Metering |
| Biomethane | Biomethane injection and biogas combustion, except from landfill gas | Biomethane all scales, biogas combustion less than 200 kWth | 6.5 | 20 | Metering |

Further Information

- http://www.decc.gov.uk/en/content/cms/meeting_energy/Renewable_ener/incentive/incentive.aspx



Harepath LLP

The Dairy
Market Road
Richmond
TW9

Code for Sustainable Homes Pre-Assessment Estimate

Code Level 6
Code Level 5
Code Level 4
Code Level 3
Code Level 2
Code Level 1

| Author | Ver | Rev | Date |
|--------|-----|-----|------------|
| IT | 1 | B | 19.08.2011 |

Revisions:

| Ver | Rev | Date | Changes | Issued |
|-----|-----|----------|-------------------|--------|
| 1 | - | 16.08.11 | Internal | - |
| 1 | A | 17.08.11 | Draft For Issue | IT |
| 1 | B | 19.08.11 | Revised for Issue | IT |

Distribution:

| Ver | Rev | Date | Issued to | H | E |
|-----|-----|----------|--------------|---|---|
| 1 | A | 17.08.11 | Harepath LLP | x | ✓ |
| 1 | A | 19.08.11 | Harepath LLP | x | ✓ |
| | | | | | |

Code for Sustainable Homes Pre-Assessment Estimate on Proposed Development at:

**The Dairy
Market Road
Richmond
TW9**

This Pre-Assessment Estimate indicates how a rating of Code Level 3 could be achieved.

| | |
|--|---|
| Code Level: | 3 |
| Predicted Score: | 62.65% |
| Predicted Code Level Threshold: | 57.00% |
| Mandatory Requirements: | All Met |
| Assessed Version: | Nov 2010 (Version 1) |
| Registered Version: | To be registered with BRE at Design Stage |

This Code for Sustainable Homes Pre-Assessment Estimate has been prepared by SRE for Harepath LLP (Client) and the Design Team as part of the Client's requirements for the 45 proposed residential units at the Dairy, Market Road development, Richmond. The estimate has been based on details supplied by Paul Brookes Architects, a desktop study and certain credits have been assessed on best practice and historical data.

Overview

The Proposed Development at The Dairy, Market Road, Richmond, Greater London, consists of 45 Units ranging from 1 to 3 bedrooms, over a multiple. The units will achieve a minimum of Code for Sustainable Homes Level 3. Efficient water fittings such as low flow showers and flow restricted taps will be required to meet the minimum standards for CSH Level 3, as well as the provision of correctly sized water butts, refuse stores and bike store. Other considerations have been taken into account, and certain assumptions of specified items have been made, please see pre-assessment for indicative specification.

¹ The Code for Sustainable Homes name and logo is a registered trademark of the Department for Communities and Local Government (CLG). Copyright exists on Code for Sustainable Homes logo and it may not be used or reproduced in any form for any purpose without prior written consent of CLG. The BRE Global name and logo are registered trademarks of BRE Global Ltd (BREG). Whilst every care is taken in preparing this estimator, BREG or SRE Ltd cannot accept any inaccuracies or for any consequential loss incurred as a consequence of these inaccuracies arising through the use of the estimator tool. The Assessor (for itself and as an agent for its staff) and its staff shall not be liable whether in contract or in tort or otherwise for any loss or damage sustained as a result of using or relying on the information given in this report.

Summary Score Sheet

| Section | Credits Available | Target Score | Unit No / Unit Type | | | Assumption | Confirmed |
|-------------------------------|-------------------|--------------|---------------------|-------------|-------------|------------|-----------|
| | | | 1 bed units | 2 bed units | 3 bed units | | |
| Energy | | | | | | | |
| Ene 1 | 10 | 5 | 5 | 5 | 5 | ✓ | |
| Ene 2 | 9 | 7 | 7 | 7 | 7 | ✓ | |
| Ene 3 | 2 | 0 | 0 | 0 | 0 | ✓ | |
| Ene 4 | 1 | 1 | 1 | 1 | 1 | ✓ | |
| Ene 5 | 2 | 1 | 1 | 1 | 1 | ✓ | |
| Ene 6 | 2 | 2 | 2 | 2 | 2 | ✓ | |
| Ene 7 | 2 | 2 | 2 | 2 | 2 | ✓ | |
| Ene 8 | 2 | 2 | 2 | 1 | 1 | ✓ | |
| Ene 9 | 1 | 1 | 1 | 1 | 1 | ✓ | |
| | 31 | 21 | 21 | 20 | 20 | | |
| Water | | | | | | | |
| Wat 1 | 5 | 3 | 3 | 3 | 3 | ✓ | |
| Wat 2 | 1 | 0 | 0 | 0 | 0 | ✓ | |
| | 6 | 3 | 3 | 3 | 3 | | |
| Materials | | | | | | | |
| Mat 1 | 15 | 11 | 11 | 11 | 11 | | ✓ |
| Mat 2 | 6 | 2 | 2 | 2 | 2 | ✓ | |
| Mat 3 | 3 | 1 | 1 | 1 | 1 | ✓ | |
| | 24 | 14 | 14 | 14 | 14 | | |
| Surface Water | | | | | | | |
| Sur 1 | 2 | 0 | 0 | 0 | 0 | ✓ | |
| Sur 2 | 2 | 2 | 2 | 2 | 2 | ✓ | |
| | 4 | 2 | 2 | 2 | 2 | | |
| Waste | | | | | | | |
| Was 1 | 4 | 4 | 4 | 4 | 4 | ✓ | |
| Was 2 | 3 | 2 | 2 | 2 | 2 | ✓ | |
| Was 3 | 1 | 0 | 0 | 0 | 0 | ✓ | |
| | 8 | 6 | 6 | 6 | 6 | | |
| Pollution | | | | | | | |
| Pol 1 | 1 | 1 | 1 | 1 | 1 | ✓ | |
| Pol 2 | 3 | 0 | 0 | 0 | 0 | ✓ | |
| | 4 | 1 | 1 | 1 | 1 | | |
| Health & Wellbeing | | | | | | | |
| Hea 1 | 3 | 2 | 2 | 2 | 2 | ✓ | |
| Hea 2 | 4 | 3 | 3 | 3 | 3 | ✓ | |
| Hea 3 | 1 | 1 | 1 | 1 | 1 | ✓ | |
| Hea 4 | 4 | 4 | 4 | 4 | 4 | | ✓ |
| | 12 | 10 | 10 | 10 | 10 | | |
| Management | | | | | | | |
| Man 1 | 3 | 3 | 3 | 3 | 3 | ✓ | |
| Man 2 | 2 | 0 | 0 | 0 | 0 | ✓ | |
| Man 3 | 2 | 0 | 0 | 0 | 0 | ✓ | |
| Man 4 | 2 | 2 | 2 | 2 | 2 | ✓ | |
| | 9 | 5 | 5 | 5 | 5 | | |
| Ecology and Land-Use | | | | | | | |
| Eco 1 | 1 | 1 | 1 | 1 | 1 | | ✓ |
| Eco 2 | 1 | 0 | 0 | 0 | 0 | ✓ | |
| Eco 3 | 1 | 1 | 1 | 1 | 1 | ✓ | |
| Eco 4 | 4 | 2 | 2 | 2 | 2 | ✓ | |
| Eco 5 | 2 | 1 | 1 | 1 | 1 | ✓ | |
| | 9 | 5 | 5 | 5 | 5 | | |
| Weighted Total (%) | 100.0 | 63.8 | 63.8 | 62.7 | 62.7 | | |
| CSH Level | | 3 | 3 | 3 | 3 | | |

Key Assumptions/Notes

The following key assumptions/notes have been made by SRE in calculating the pre-assessment estimate – **they show what will need to be included in the design specification to meet the Code for Sustainable Homes requirements to achieve the required credits.** The Code for Sustainable Homes Pre-Assessment Estimator tool has been included in this report, to show the options available for each credit and how the total was reached. This tool shows the lowest scoring unit in the development and should not be used as a guide for all units, please refer to the summary table above for more information on credit allocation.

Credits Ene 1 and Ene 2 will need to be confirmed as the site progresses as these may change as the design progresses. Therefore SRE kindly request that we are informed of any plan and/or specification changes, and any revisions are passed on to SRE as soon as possible.

Credits Ene 9 and Hea 1 are contingent on daylight factors of 1.5% being achieved in the living/dining rooms, and the Home Office function being assigned to a room with a daylight factor over 1.5%. Please see the relevant sections below for further details.

Energy

*This section assesses the performance of a development in terms of its overall energy use. Important factors for design stage consideration are the Fabric Energy Efficiency (FEE), energy efficiency of fittings, and features which promote energy efficient behaviour from occupants, such as cycle storage facilities. **In order to reach the higher code levels, or to compensate for lower building performance than expected from passive energy efficiency measures, the use of renewables may be required.***

- **(MANDATORY)** Ene 1 – Initial SAP calculations show that the indicative Dwelling Emissions Rate improvement over the Target Emissions Rate will be ~49% due to the use of efficient heating and the allocation of PV. This allows 5 credits to be gained.
- Ene 2 – Indicative SAP calculations show that the Fabric Energy Efficiency figures for the dwellings will be max. ~38 kWh/m²/yr. This allows 7 credits to be gained.
- Ene 3 – It has been assumed that an Energy Display Device will not be installed in any of the dwellings at present.
- Ene 4 – It is assumed that individual, internal drying space will be provided to all units. This will be a fixed drying line of >4m for dwellings with 2 bedrooms and under, and >6m in length for dwellings of 3 bedrooms and over. This is anticipated to be within the bathroom space.

All drying space areas will have extract ventilation with a minimum of 30l/s extract rate controlled in accordance with the requirements for intermittent extract ventilation, as defined in Approved Document Part F.

- Ene 5 – It has been assumed that no white goods will be supplied with the units however an information leaflet on the EU Energy Efficiency Labelling Scheme, what it

is and what it means, will be provided in each unit.

- Ene 6 – Space lighting has been assumed to be energy efficient and timer/PIR controlled. Burglar security lighting must be PIR and daylight sensor controlled, with no fitting of more than 150 watts. Specification will need to state details and plans will need to show location of all luminary devices.
- Ene 7 – At this stage it has been assumed that renewable technologies will be specified, and that these will reduce CO2 emissions by the 15% required to gain 2 credits. All renewable technologies are required to be certified under the Microgeneration Certification scheme (MCS) or assured under the Combined Heat and Power Quality Assurance standard (CHPQA).
- Ene 8 – Drawings show that a communal cycle store with sufficient space for 45 spaces will be provided – one space per unit.

The results in the following credits being gained for each of the units:

- 1 Bed Units: 2 credits
- 2 Bed Units: 1 credit
- 3 Bed Units: 1 credit

The cycles store will be secure and only accessible to residents, with cycles fixed to proprietary racks, fixed within a concrete foundation allowing all cycles to be removed and replaced individually. The fittings must be of a type which allow the wheel and the frame to be secured using a conventional bike lock.

Please note that to qualify for this credit the cycle store can NOT be located within the dwelling itself and access to a public right of way must be available without the need to take the bicycle through the dwelling.

- Ene 9 – The specification needs to state in which room the Home Office will be situated. As detailed plans have not been provided, details on the preferred location of the Home Office space cannot be given at this stage.

It has however, been assumed that a Home Office will be supplied to each unit, and the following will be provided in a compliant space:

- Sufficient space – 1.8m of free wall space to fit a desk and filing cabinet/bookshelf without interfering with the intended use of that room.
- Two double power sockets
- Two telephone points (one where the dwelling is connected to cable or broadband internet)
- Window (Openable)
- Additionally, the Home Office space needs to have a Daylight Factor of over 1.5% - please provide detailed floor plans and elevations to enable calculations to be undertaken.

Water

This section assesses the performance of a building in terms of the likely water usage of occupants. Note: Achieving a high code rating (3 or above) without the use of rainwater harvesting systems will require the use of reduced flow and water saving devices throughout the development.

- **(MANDATORY)** Wat 1 - Internal water use needs to be <105 litres/person/day to achieve Code Level 3 – to meet this requirement the following fittings will be installed:
 - Kitchen sink taps have a flow rate of 5 litres/min or less
 - Bathroom basin taps have a flow rate of 4 litres/min or less
 - Low Flow Showers (not more than 8 litres/min)
 - Dual Flush WC's (4/2.6 Litre)
 - Bath: maximum 200 litre
 - Space only for Washing Machine
 - Space only for Dishwasher

PLEASE NOTE: Where a bath is specified in the units it has been assumed that a shower fitting has also been specified.

- Wat 2 – External water storage will not be provided.

Materials

This section assesses both the environmental impact of materials used in construction (Mat 1) and the responsibility of the sourcing of those materials (Mats 2 and 3). Mat 1 is assessed based on the BRE Green Guide (available online at www.bre.co.uk/greenguide) ratings of the various materials specified. Mat 2 and 3 will require the details of material suppliers EMS, FSC/PEFC certificates etc. in order to gain credits.

(MANDATORY) Mat 1 – As many as practical of the 5 key elements must achieve a rating of A+ to D from The Green Guide 2008. It has been assumed that the following elements will have a Green Guide rating of at least A.

- Roof
- External Walls
- Internal Walls
- First Floors
- Windows

The table below gives an example specification (taken from the Garden Road specification) which would meet these requirements:

| | | | |
|----------------|---------------------|--|----------|
| Roofs | | Vapour control layer, insulation, timber joists, plywood (temperate EN 636-2) decking, oxidised polyester reinforced bitumen roofing membranes with mineral finish 812520002 | A+ Rated |
| External Walls | | Insulated polymeric render system, SIP with 8mm cement-bonded particleboard and polyurethane insulation with a blowing agent GWP of 25, plasterboard on battens, paint 906000026 | A Rated |
| Internal Walls | Party walls | Robust Details E-WT-3 :Twin timber proprietary prefab panels. No sheathing board, 240mm min. between wall linings, wall ties where necessary, to each side - 60mm min. mineral wool between studs, 2 or more layers of gypsum based board (22kg/m ²) and paint 918570000 | A+ rated |
| | Internal Partitions | Timber stud, plasterboard, paint 809760003 | A+ Rated |
| Ground Floors | | Screeded in situ concrete slab, over insulation on polyethylene dpm laid on blinded recycled aggregate sub-base 820100029 | C Rated |
| Upper Floors | | Approved Document E: Floor type 3.1A: Platform floor - 19mm Chipboard on plasterboard (total min. 25kg/m ²) on 25mm min. mineral wool (80 kg/m ³) on chipboard deck (20kg/m ² min.) on timber frame floor structure with Ceiling Treatment A. 829910235 | C Rated |
| Windows | | Powder coated aluminium window with softwood internal frame, double glazes, water based stain internally: aluminium profile < 0.87 kg/m and timber profile < 2 kg/m 913100062 | B Rated |

- Mat 2 – It is assumed that as much as practical of the basic and finishing elements in the development will be responsibly sourced – Medium/low credits have been assumed here.

Elements assessed under this credit are:

- Frame
- Upper Floors
- External Wall
- Foundation/substructure
- Ground Floor
- Roof
- Internal Walls
- Staircase

Additionally, 100% of all timber for these elements must be legally sourced

- Mat 3 – It is assumed that as much as practical of the finishing elements in the development will be responsibly sourced – Medium/Low Credits have been assumed here.

Elements assessed under this credit are:

- Stair (handrails etc.)
- Window
- External and Internal Doors
- Skirting
- Panelling
- Furniture
- Fascias
- Any other significant use

Additionally, 100% of all timber for these elements must be legally sourced

Chain of Custody certification will be needed as part of the CSH assessment for credits to be gained under both Mat 2 and Mat 3 issues.

Surface Water Runoff

*The aim of this section is to encourage developments which avoid, reduce and delay rainwater run-off to public sewers and watercourses, and to encourage the development of sites which have a low inherent risk of flooding. A hydrologist/hydrological engineer **MUST** be appointed to carry out calculations in support of the Sur 1 portion of this section.*

- **(MANDATORY) Sur 1 - Peak runoff rates and annual runoff post development must be no greater than the previous conditions for the site.**

Flood Risk Assessment (FRA) or engineer's calculations will need to show that this can be achieved.

Should the additional credits be required within this section, SUDS must be used to improve water quality of the rainwater discharged or for protecting the quality of the receiving waters by.

1. Ensuring no discharge to the watercourse for rainfall depths up to 5mm (follow guidance in the Interim Code of Practice for Sustainable Drainage systems (SUDS) (CIRIA, 2004).

AND

2. The run-off from all hard surfaces shall receive an appropriate level of treatment in accordance with the SUDS Manual to minimise the risk of pollution.

Any SUDS implemented will be required to ensure they are sized appropriately to withstand a 1 in 100 year rainfall event plus 30% increase for climate change.

PLEASE NOTE: that only the mandatory requirements have been assumed as being achieved at present.

- Sur 2 – Flood risk has been assessed through Environment Agency flood risk mapping and has been deemed as of low probability. FRA or engineers assessments (in accordance with PPS25) will need to be provided to confirm this.

Waste

Credits are gained in this section for providing recycling and waste storage facilities for developments, and for minimising waste produced as a result of construction site activities. Note: The requirements of Was 2 include the maintenance of records detailing site waste, and a report outlining the overall performance of the development in terms of waste minimisation.

- **(MANDATORY) Was 1** – To achieve credits the space allowed for waste storage should be as follows:
 - Internal storage of a minimum of 30 litres, in a dedicated position (i.e. a cupboard or similar), marked as for recycling in each unit and not be free-standing. This will be provided in addition to conventional waste storage.
 - External containers in compliance with Local Authority regulations, with a dedicated storage position.
 - The minimum capacity of waste storage as calculated from the BS 5906 (Code of Practice for Storage and On-Site Treatment of Solid waste from buildings (2005))
 - All containers must be accessible to disabled people, particularly wheelchair users and sited on a hard, level surface within 30m level walking route of the main (level threshold) access to the dwellings.
 - All waste storage should be stored in line with the Inclusive Design Principles checklist (IDP) to meet the requirements of this section.
- Was 2 – The developer/contractor will need to produce and implement a compliant Site Waste Management Plan (SWMP) with the following requirements:

Minimising Construction Waste

- Targets for resource efficiency
- Procedures and commitments to minimise non-hazardous waste
- Minimising hazardous waste from site
- Monitoring, measuring and reporting of hazardous and non-hazardous site waste

Diverting Waste from Landfill

Where there is a compliant SWMP including procedures and commitments to sort and divert waste from landfill through either;

- Re-use on site
- Re-use on other sites
- Salvage/reclaim for re-use
- Return to the supplier via a 'take-back scheme'
- Recovery and recycling using an approved waste management contractor

- Compost
- according to defined waste groups.

AND

Where at least 50% by weight or by volume of non-hazardous construction waste generated by the project has been diverted from landfill.

Please see checklist WAS 2 for information on what needs to be included within the SWMP.

PLEASE NOTE: it is important that this is implemented from the offset of construction and that there is a commitment on the contractor to achieve the above items.

- Was 3 – Composting facilities will not be provided.

Pollution

Credits are awarded in this section for the use of heating systems with a low NO_x emissions and insulation with a low Global Warming Potential (GWP)

- Pol 1 - All insulation will have a GWP of less than 5, and manufacturer's details to back this up will be provided.

Please see Checklist POL 1 for indications as to which insulation is covered by this credit and what information is required.

- Pol 2 – Due to the use of Exhaust Air Heat Pumps throughout the development, this credit cannot be gained.

Health & Well Being

This section awards credits for the consideration of factors which influence the psychosocial performance of the development. Achieving the desired daylight factors in particular should be considered at the early design stage. Note: Achieving credits in section Hea 2 will require sound performance testing demonstrating compliance.

- Hea 1 - Detailed drawings for the site are yet to be received, and therefore daylight calculations have not been undertaken. However, based on the initial plans the following assumptions have been made:
 - Based on initial analysis of the site it has been assumed that the kitchens of all units will achieve a minimum daylight factor of 2%.
 - It has been assumed that all units will achieve the minimum 1.5% daylight factor in the living/dining room/home office (location tbc).
 - Due to the site location, the View of Sky credits have not been assumed at present.
- Hea 2 – At this stage it has been assumed that sound insulation will be tested and achieve a 5dB improvement over the minimum Building Regulations Requirements, and therefore 3 credit can be gained. Sound test reports for the testing of party walls and floors will be provided post completion to confirm.
- Hea 3 – Communal outdoor space is shown on the drawings. This will be accessible in accordance with BS8300 and be sufficiently sized for 1m²/bedspace.
- Hea 4 – All units will meet the Lifetime Homes Standards as indicated on the drawings.

Management

Please note that, as with the requirements for Was 2 (construction site waste), achieving the Man 3 credits (construction site impacts) will require that records are kept throughout the construction period, and that explicit targets for site impact minimisation are set.

- Man 1 – A Home User Guide will be produced that provides:

Non-technical information on the developments operational issues:

- Environmental Strategy/Design & Features
- Energy Use & Efficiency
- Water Use
- Recycling & Waste
- Sustainable DIY
- Emergency Information
- Links, References & Further Information

- Provision of Information in Alternative Formats

Information on the site and its surroundings:

- Recycling & Waste
- Public Transport
- Local Amenities
- Responsible Purchasing
- Emergency Information
- Links, References & Further Information

Please see Checklist MAN 1 for a comprehensive list of the requirements of the Home User Guide.

- Man 2 – The developer will not sign up to the Considerate Constructors Scheme, and therefore no credits are awarded.
- Man 3 – No construction site impacts monitoring will be undertaken by the developer.
- Man 4 – It is assumed at this stage that the Proposed Development will seek consultation with an ALO, and will follow any recommendations made in order to achieve Secured by Design Section 2 Compliance.

Ecology

The ecology section of the CSH assessment aims to encourage the minimisation of the ecological impact of developments, and the preservation and improvement of a site's ecological value. Note: The requirements for a site to be considered of low ecological value are stringent, and should a site be defined as having ecological value there will be a knock-on effect to the Eco 3 credit.

- Eco 1 – It is assumed the site will meet the criteria to be defined as of low ecological value. It is not anticipated that an ecological report will be undertaken.
- Eco 2 – as an ecological report is not being undertaken, this credit cannot be gained.
- Eco 3 – The site has been assumed to be of low ecological value and therefore this credit can be gained by default.
- Eco 4 - It is assumed that the 'change in ecological value' credits will be sought and that calculations will show a neutral change in ecological value. An ecologists report will be needed in order to confirm the change in ecological value.
- Eco 5 – It has been assumed at present that the Total Ground Floor Area: Total Net Internal Floor Area ratio will be sufficient to gain 1 credit in this section (>3:1 ratio). Once detailed drawings are available, calculations will be undertaken to confirm.

CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

Code for Sustainable Homes
PRE ASSESSMENT ESTIMATOR TOOL



Results

| | |
|------------------------------|---|
| Development Name: | The Dairy, Market Road, Richmond, Greater London. |
| Dwelling Description: | 45 Dwellings (1,2, and 3 bed) |
| Name of Company: | SRE Ltd |
| Code Assessor's Name: | Iain Turrell |
| Company Address: | SRE LTD Stoner Hill Road, Froxfield, Petersfield, Hampshire GU32 1DY |
| Notes/Comments: | |

PREDICTED RATING - CODE LEVEL: 3

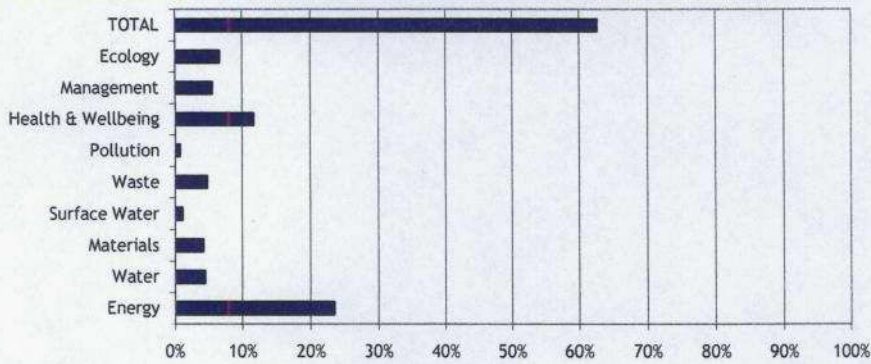
Mandatory Requirements: All Levels

% Points: 62.65% - Code Level: 3

Breakdown: Energy - Code Level: 4

Water - Code Level: 4

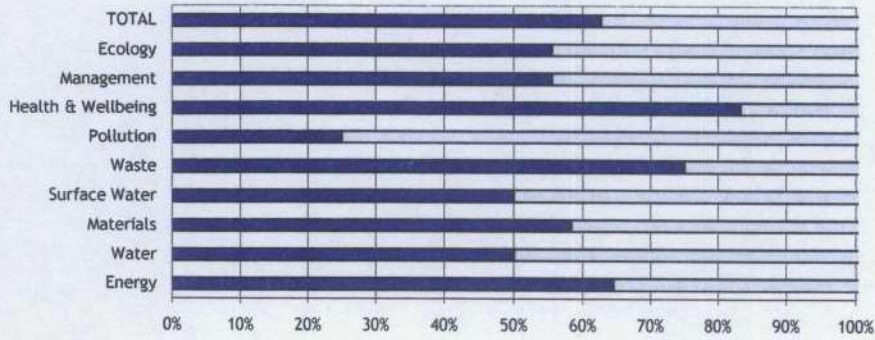
Graph 1: Predicted contribution of individual sections to the total score and percentage of total achievable score



CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

Code for Sustainable Homes
PRE ASSESSMENT ESTIMATOR TOOL

Graph 2: Predicted percentage of credits achievable: Total and by Category



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 Code assessor.

© BRE Global Ltd, 2010. The BRE Global name and logo are registered trademarks owned by BRE Global Ltd and may not be used without BRE Global's written permission. Permission is given for this estimator to be copied without infringement of copyright for use only on projects where a Code for Sustainable Homes assessment is carried out. Whilst every care is taken in preparing this estimator, BRE Global cannot accept responsibility for any inaccuracies or for consequential loss incurred as a result of such inaccuracies arising through the use of the estimator tool.

CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

| CATEGORY 1 ENERGY | | Overall Level: 3 | Overall Score 62.65 | | |
|---|--|----------------------------|---------------------|---|---|
| % of Section Credits Predicted: 64.51 | | Credits Level | | Assumptions Made | Evidence Required (The below cells can be formatted by assessors if required.) |
| Contribution to Overall % Score: 23.48 points | | 20.0 of 31 Credits Level 4 | | | |
| Ene 1 Dwelling Emission Rate | <p>Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score.</p> <p>Enter the predicted score _____</p> <p>What is the predicted number of credits? <input type="text" value="5.0"/></p> <p>OR Are zero net CO₂ emissions achieved? <input type="checkbox"/></p> | 5.0 of 10 Credits | Level 4 | Based on the initial SAP calculations, an improvement of the DER/TER has been calculated at -49% and therefore 5 credits can be awarded. | SAP's for each energy type, accompanying list of specifications from energy assessor Copy of plans elevations and sections as designed and construction details sufficient to check building details. |
| Ene 2 Fabric Energy Efficiency | <p>Credits are awarded based on the Fabric Energy Efficiency (kWh/m²/yr) of the dwelling. Minimum standards apply at Code levels 5 and 6. The Code energy calculator can be used to calculate a predicted score.</p> <p>Enter the predicted score _____</p> <p>Apartments, Mid-terrace <input type="radio"/></p> <p>OR End terrace, Semi and Detached <input type="radio"/></p> <p>OR Staggered Mid terrace <input checked="" type="radio"/></p> <p>What is the predicted number of credits? <input type="text" value="7.0"/></p> | 7.0 of 9 Credits | Level 6 | Initial SAP calculations show that the Fabric Energy Efficiency figure is -38 kWh/m ² /yr and therefore 7 credits can be gained. | SAP's for each energy type, accompanying list of specifications from energy assessor Copy of plans elevations and sections as designed and construction details sufficient to check building details. Copy of 'Design Stage' part L1A Building Regulation Compliance Checklist, showing full compliance for each energy type. |
| Ene 3 Energy Display Devices | <p>Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption.</p> <p>Select whether the EDD monitors electricity and/or fuel _____</p> <p>None Specified <input checked="" type="radio"/></p> <p>Primary Heating only <input type="radio"/></p> <p>OR Electricity only <input type="radio"/></p> <p>OR Electricity and primary heating fuel <input type="radio"/></p> | 0 of 2 Credits | - | It has been assumed that an Energy Display Device will not be installed in any of the dwellings at present. | Specific commitment from the developer that a compliant Energy Display Device will be installed. |

| Issue | Credits | Level | Assumptions Made | Evidence Required |
|--|----------------|-------|---|---|
| <p>Ene 4 Drying Space</p> <p>One credit is awarded for the provision of either internal or external secure drying space with posts and footings or fixings capable of holding 4m+ of drying line for 1-2 bed dwellings and 6m+ for dwellings with 3 bedrooms or greater.</p> <p>Will drying space meeting the criteria be provided? _____</p> <p>Yes <input checked="" type="radio"/></p> <p>OR No <input type="radio"/></p> | 1 of 1 Credits | - | It is assumed that individual, internal drying space will be provided to all units. This will be a fixed drying line of >4m for dwellings with 2 bedrooms and under, and >6m in length for dwellings of 3 bedrooms and over. This is anticipated to be within the bathroom space. | Design stage drawings clearly showing the locations and line lengths of drying facilities, with (for internal drying space) details and locations of ventilation systems and (for external drying space) the locations and details of fixings or footings for the facilities. |
| <p>Ene 5 Energy Labelled White Goods</p> <p>Credits are awarded where each dwelling is provided with either information about the EU Energy Labelling Scheme, White Goods with ratings ranging from A+ to B or a combination of the previous according to the technical guide.</p> <p>Select the appropriate option below _____</p> <p>EU Energy labelling information only <input checked="" type="checkbox"/></p> <p>A+ rated appliances <input type="checkbox"/></p> <p>A+, A and B rated appliances <input type="checkbox"/></p> <p>Combination of compliant rated white goods with EU Energy Labelling Scheme <input type="checkbox"/></p> | 1 of 2 Credits | - | It has been assumed that no white goods will be supplied with the units however an information leaflet on the EU Energy Efficiency Labelling Scheme, what it is and what it means, will be provided in each unit. | copy of the Eu Energy Labelling Scheme leaflet to be provided. |
| <p>Ene 6 External Lighting</p> <p>Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear..</p> <p>Space Lighting _____</p> <p>None provided <input type="radio"/></p> <p>OR Non Code compliant lighting <input type="radio"/></p> <p>OR Code compliant lighting <input checked="" type="radio"/></p> <p>Security Lighting _____</p> <p>None provided <input type="radio"/></p> <p>OR Non Code compliant lighting <input type="radio"/></p> <p>OR Code compliant lighting and controls <input checked="" type="radio"/></p> <p>Dual lamp luminaires _____</p> <p>Compliant with both above criteria <input type="checkbox"/></p> <p>* Statutory safety lighting is not covered by this requirement</p> | 2 of 2 Credits | - | Space lighting has been assumed to be energy efficient and timer/PIR controlled. Burglar security lighting must be PIR and daylight sensor controlled, with no fitting of more than 150 watts. Specification will need to state details and plans will need to show location of all luminary devices. | Relevant drawings showing the location of all external light fittings AND text on drawings or in specification describing the type of all external light fittings. |

CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

| Issue | Credits | Level | Assumptions Made | Evidence Required |
|---|----------------|-------|---|---|
| <p>Ene 7 Low or Zero Carbon Technologies</p> <p>Credits are awarded where there is a 10% or 15% reduction in CO₂ emissions resulting from the use of low or zero carbon technologies.</p> <p>Select % contribution made by low or zero carbon technologies</p> <p>Less than 10% of demand <input type="radio"/></p> <p>OR 10% of demand or greater <input type="radio"/></p> <p>OR 15% of demand or greater <input checked="" type="radio"/></p> | 2 of 2 Credits | - | At this stage it has been assumed that renewable technologies will be specified, and that these will reduce CO ₂ emissions by the 15% required to gain 2 credits. All renewable technologies are required to be certified under the Microgeneration Certification scheme (MCS) or assured under the Combined Heat and Power Quality Assurance standard (CHPQA). | confirmation of MCS Accreditation of installed equipment and installers. AND SAP worksheets including LZC information (with supporting evidence such as drawings showing locations of LZC elements etc.). |
| <p>Ene 8 Cycle Storage</p> <p>Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements.</p> <p>Fill in the development details below</p> <p>Number of bedrooms: <input type="text" value="3"/></p> <p>Number of cycles stored per dwelling* <input type="text" value="1.0"/></p> <p>* if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling</p> | 1 of 2 Credits | - | Drawings show that a communal cycle store with sufficient space for 45 spaces will be provided - one space per unit. The results in the following credits being gained for each of the units: o 1 Bed Units: 2 credits o 2 Bed Units: 1 credit o 3 Bed Units: 1 credit | Drawings and text showing: Location, type and size of storage; Access to storage; Security measure and details of any proprietary systems. |
| <p>Ene 9 Home Office</p> <p>A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements.</p> <p>Will there be provision for a Home Office?</p> <p>Yes <input checked="" type="radio"/></p> <p>OR No <input type="radio"/></p> | 1 of 1 Credits | - | The specification needs to state in which room the Home Office will be situated. As detailed plans have not been provided, details on the preferred location of the Home Office space cannot be given at this stage. It has however, been assumed that a Home Office will be supplied to each unit. Please see the Pre-Assessment text for details of services needed. | Drawings and text detailing the location and sufficient space for the HO, locations of power and phone sockets, confirmation of adequate ventilation. |

ASH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

| CATEGORY 2 WATER | | Overall Level: 3 | Overall Score 62.65 | | |
|--|--|------------------|---------------------------|---|--|
| % of Section Credits Predicted: 50.00 | | | Credits | Level | |
| Contribution to Overall Score: 4.50 points | | | 3 of 6 Credits | Level 4 | |
| | | | | | Evidence Required (The below cells can be formatted by assessors if required.) |
| Wat 1 Indoor Water Use | <p>Credits are awarded based on the predicted average household water consumption, calculated using the Code Water Calculator Tool. Minimum standards for each code level apply.</p> <p>Select the predicted water use / Mandatory Requirement</p> <ul style="list-style-type: none"> greater than 120 litres/ person/ day <input type="radio"/> OR ≤ less than 120 litres/ person/ day <input type="radio"/> OR ≤ less than 110 litres/ person/ day <input type="radio"/> OR ≤ less than 105 litres/ person/ day <input checked="" type="radio"/> OR ≤ less than 90 litres/ person/ day <input type="radio"/> OR ≤ less than 80 litres/ person/ day <input type="radio"/> | 3 of 5 Credits | Level 3 AND Level 4 | <p>Internal water use needs to be <105 litres/person/day to achieve Code Level 3 - to meet this requirement the following fittings will be installed:</p> <ul style="list-style-type: none"> o Kitchen sink taps have a flow rate of 5 litres/min or less o Bathroom basin taps have a flow rate of 4 litres/min or less o Low Flow Showers (not more than 8 litres/min) o Dual Flush WC's (4/2.6 Litre) o Bath: maximum 200 litre o Space only for Washing Machine o Space only for Dishwasher | <p>Drawings and text in specifications detailing locations, details and types of appliances, fittings etc. and including confirmation that systems have been designed to minimise risk of microbial contamination.</p> |
| Wat 2 External Water Use | <p>A credit is awarded where a compliant system is specified for collecting rainwater for external irrigation purposes. Where no outdoor space is provided the credit can be achieved by default.</p> <p>Select the scenario that applies</p> <ul style="list-style-type: none"> No internal or communal outdoor space <input type="radio"/> OR Outdoor space with collection system <input type="radio"/> OR Outdoor space without collection system <input checked="" type="radio"/> | 0 of 1 Credits | - | no rainwater collection system will be installed. | <p>The design stage drawings should show the location of water butts and other provisions for rainwater collections.</p> |

CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

| CATEGORY 3 MATERIALS | | Overall Level: 3 | Overall Score | 62.65 | Assumptions Made | Evidence Required (The below cells can be formatted by assessors if required.) |
|--|---|------------------|---------------|---|--|---|
| % of Section Credits Predicted: 58.33 | | Credits | Level | | | |
| Contribution to Overall Score: 4.20 points | | 14 of 24 Credits | All Levels | | | |
| Mat 1 Environmental Impact of Materials | <p>Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D.</p> <p>Tradable Credits: Points are awarded on a scale based on the Green Guide Rating of the specifications. The Code Materials Calculator can be used to predict a potential score.</p> <p>Mandatory Requirement _____</p> <p>Will the mandatory requirement be met? <input checked="" type="checkbox"/></p> <p>Enter the predicted score _____</p> <p>What is the predicted number of credits? <input type="text" value="11"/></p> | 11 of 15 Credits | All Levels | Based on the Garden Road Specification used at the Design Stage Assessment, this development can gain 11 credits within this section. | Drawings or specification text detailing the locations and areas of elements, and the materials used within them. | |
| Mat 2 Responsible Sourcing of Materials - Basic Building Elements | <p>Credits are awarded where materials used in the basic building elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score.</p> <p>Enter the predicted Score _____</p> <p>What is the predicted number of credits? <input type="text" value="2"/></p> | 2 of 6 Credits | - | It is assumed that as much as practical of the basic and finishing elements in the development will be responsibly sourced - Medium/low credits have been assumed here. | Drawings or specification text detailing the locations and areas of elements, and the materials used within them. AND documentation, EMS certificates etc. proving provenence of materials, linked to the relevant element. | |
| Mat 3 Responsible Sourcing of Materials - Finishing Elements | <p>Credits are awarded where materials used in the finishing elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score.</p> <p>Enter the predicted Score _____</p> <p>What is the predicted number of credits? <input type="text" value="1"/></p> | 1 of 3 Credits | - | It is assumed that as much as practical of the finishing elements in the development will be responsibly sourced - Medium/Low Credits have been assumed here. | Drawings or specification text detailing the locations and areas of elements, and the materials used within them. AND documentation, EMS certificates etc. proving provenence of materials, linked to the relevant element. | |

CSH Pre-Assessment Estimate – The Dairy, M at Road, Richmond, Greater London

| CATEGORY 4 SURFACE WATER RUN-OFF | | Overall Level: 3 | Overall Score 62.65 | | |
|--|--|------------------|---------------------|--|--|
| % of Section Credits Predicted: 50.00% | | Credits Level | | Assumptions Made | Evidence Required (The below cells can be formatted by assessors if required.) |
| Contribution to Overall Score: 1.10 points | | 2 of 4 Credits | All Levels | | |
| Sur 1 Management of Surface Water Run-off from developments | <p>Mandatory Requirement: Peak rate of run-off into watercourses is no greater for the developed site than it was for the pre-development site and that the additional predicted volume of rainwater discharge caused by the new development is entirely reduced as far as possible in accordance with the assessment criteria. Designing the drainage system to be able to cope with local drainage system failure. Tradable Credits: Where SUDS are used to improve water quality of the rainwater discharged or for protecting the quality of the receiving waters.</p> <p>Mandatory Requirement —————</p> <p>Will the mandatory requirement be met? <input checked="" type="checkbox"/></p> <p>Select the appropriate option —————</p> <p>No SUDS <input type="checkbox"/></p> <p>No runoff into watercourses for the first 5 mm of rainfall <input type="checkbox"/></p> <p>Runoff from hard surfaces will receive an appropriate level of treatment <input type="checkbox"/></p> | 0 of 2 Credits | All Levels | <p>Peak runoff rates and annual runoff post development must be no greater than the previous conditions for the site.</p> <p>Flood Risk Assessment (FRA) or engineer's calculations will need to show that this can be achieved.</p> | <p>Confirmation of the appointment of an appropriately qualified consultant AND a copy of the consultants report and Flood Risk Assessment AND copies of any drawings and specifications needed to support claims.</p> <p>Calculations should include figures and calculations for the following data: Pre-development peak run-off (l/sec) Post- development peak run-off (l/sec) Pre-development annual run-off volume (l) Post-development annual run-off volume (l)</p> <p>Where SUDS installed: confirmation from a suitably qualified hydrologist that the systems installed are adequate to meet the requirements and are appropriately sized for a 1 in 100 year event plus an allowance for Climate Change in line with PPS25</p> |
| Sur 2 Flood Risk | <p>Credits are awarded where developments are located in areas of low flood risk or where in areas of medium or high flood risk appropriate measures are taken to prevent damage to the property and its contents in accordance with the Code criteria in the technical guide.</p> <p>Select the annual probability of flooding (from PPS25*) —————</p> <p>Zone 1 - Low <input checked="" type="radio"/></p> <p>OR Zone 2 - Medium <input type="radio"/></p> <p>OR Zone 3 - High <input type="radio"/></p> <p>Select the appropriate option(s) —————</p> <p>Low risk of flooding from FRA** <input checked="" type="checkbox"/></p> <p>All measures of protection are demonstrated in FRA <input type="checkbox"/></p> <p>Ground floor level and access routes are 600 mm above design flood level <input type="checkbox"/></p> | 2 of 2 Credits | - | <p>Flood risk has been assessed through Environment Agency flood risk mapping and has been deemed as of low probability. FRA or engineers assessments (in accordance with PPS25) will need to be provided to confirm this.</p> | <p>Confirmation of the appointment of an appropriately qualified consultant AND a copy of the consultants report and Flood Risk Assessment AND copies of any drawings and specifications needed to support claims. All reports must be in line with PPS 25</p> |

* Planning Policy Statement 25 - Planning and Flood Risk

** FRA - Flood Risk Assessment

CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

| CATEGORY 5 WASTE | | Overall Level: 3 | Overall Score 62.65 | | |
|---|---|---------------------------|---------------------|------------------|--|
| % of Section Credits Predicted: 75.00% | | Credits Level | | Assumptions Made | Evidence Required (The below cells can be formatted by assessors if required.) |
| Contribution to Overall Score: 4.80 points | | 6 of 8 Credits All Levels | | | |
| Was 1 Storage of non-recyclable waste and recyclable household waste | <p>Mandatory Requirement: The space provided for waste storage should be sized to hold the larger of either all external containers provided by the Local Authority or the min capacity calculated from BS 5906. Tradable Credits are awarded for adequate internal and/ or external recycling facilities.</p> <p>Mandatory Requirement</p> <p>Will the minimum space be provided and be accessible to disabled people? <input checked="" type="checkbox"/></p> <p>Internal Recyclable household waste storage</p> <p>Where there is no external recyclable waste storage and no Local Authority collection scheme</p> <p>Internal storage (capacity 60 litres) <input type="checkbox"/></p> <p>Local Authority collection Scheme</p> <p>Post Collection sorting <input type="checkbox"/></p> <p>Internal storage (capacity 30 litres) <input checked="" type="checkbox"/></p> <p>Pre-collection sorting <input type="checkbox"/></p> <p>Internal storage (3 separate bins, capacity 30 litres) <input type="checkbox"/></p> <p>External Storage, no Local Authority collection scheme</p> <p>3 separate internal storage bins (capacity 30 litres) <input type="checkbox"/></p> <p>AND</p> <p>Houses</p> <p>External Storage(capacity 180 litres) <input type="checkbox"/></p> <p>Flats <input type="checkbox"/></p> <p>Private recycling operator <input type="checkbox"/></p> <p>3 or greater types of waste collected <input type="checkbox"/></p> | 0 of 2 Credits | 4 of 4 Credits | All Levels | <p>To achieve credits the space allowed for waste storage should be as follows:</p> <ul style="list-style-type: none"> o Internal storage of a minimum of 30 litres, in a dedicated position (i.e. a cupboard or similar), marked as for recycling in each unit and not be free-standing. This will be provided in addition to conventional waste storage. o External containers in compliance with Local Authority regulations, with a dedicated storage position. o The minimum capacity of waste storage as calculated from the BS 5906 (Code of Practice for Storage and On-Site Treatment of Solid waste from buildings (2005)) o All containers must be accessible to disabled people, particularly wheelchair users and sited on a hard, level surface within 30m level walking route of the main (level threshold) access to the dwellings. o All waste storage should be stored in line with the Inclusive Design Principles checklist (IDP) to meet the requirements of this section. <p>Drawings or specification text showing the locations of internal and external waste storage facilities, their types and sizes, access arrangements AND written confirmation from the Local Authority of the refuse and recycling arrangements for the development area.</p> <p>Completed WAS 1 Checklist</p> |

CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

| Issue | Credits | Level | Assumptions Made | Evidence Required |
|---|---|-----------------------|--|--|
| <p>Was 2 Construction Site Waste Management</p> | <p>A credit is awarded where a compliant SWMP is provided with targets and procedures to minimise construction waste. Credits are available where the SWMP include procedures and commitments for diverting either 50% or 85% of waste generated from landfill.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>SWMP details</p> <p>Does the SWMP include:</p> <ul style="list-style-type: none"> + No SWMP <input type="radio"/> + SWMP with targets and procedures to minimise waste? <input type="radio"/> + SWMP with procedures to divert 50% of waste <input checked="" type="radio"/> + SWMP with procedures to divert 85% of waste <input type="radio"/> </div> | <p>2 of 3 Credits</p> | <p>The developer/contractor will need to produce and implement a compliant Site Waste Management Plan (SWMP) which will be in line with Checklist WAS 2.</p> <p>In addition, evidence will show that min. 50% of the waste generated by the site will be recycled. It is assumed that this will be undertaken by a third party waste contractor.</p> | <p>A copy of the SWMP containing details of monitoring procedures, commitments and targets for waste reduction etc. etc.</p> <p>This MUST include both procedures and commitments to reduce, sort, reuse and recycle waste if these credits are sought.</p> <p>Completed WAS 2 checklist</p> |
| <p>Was 3 Composting</p> | <p>A credit is awarded where individual home composting facilities are provided, or where a community/ communal composting service, either run by the Local Authority or overseen by a management plan is in operation.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Select the facilities available</p> <ul style="list-style-type: none"> No composting facilities <input checked="" type="radio"/> Individual composting facilities <input type="radio"/> <p>OR</p> <ul style="list-style-type: none"> Communal/ community composting*? <input type="radio"/> Local Authority <input type="checkbox"/> OR Private with management plan <input type="checkbox"/> </div> | <p>0 of 1 Credit</p> | <p>No composting will be provided.</p> | <p>If composters are installed, drawings and text on drawings or inspecification showing the location and size of storage, confirming disabled access and that instructions on use will be provided.</p> |

* including if an automated waste collection system is in place

CSH Pre-Assessment Estimate – The Dairy, Market Road, Richmond, Greater London

| CATEGORY 6 POLLUTION | | Overall Level: 3 | Overall Score 62.65 | | | |
|--|---|------------------|---------------------|------------|---|---|
| % of Section Credits Predicted: 25.00% | | | Credits | Level | Assumptions Made | Evidence Required (The below cells can be formatted by assessors if required.) |
| Contribution to Overall Score: 0.70 points | | | 1 of 4 Credits | All Levels | | |
| Pol 1 Global Warming Potential (GWP) of Insulants | <p>A credit is awarded where <u>all</u> insulating materials only use substances (in manufacture AND installation) that have a GWP of less than 5.</p> <p>Select the most appropriate option</p> <p>All insulants have a GWP less than 5 <input checked="" type="radio"/></p> <p>OR Some insulants have a GWP of less than 5 <input type="radio"/></p> <p>OR No insulants have a GWP of less than 5 <input type="radio"/></p> | | 1 of 1 Credits | - | All insulation will have a GWP of less than 5, and manufacturer's details to back this up will be provided. | <p>Drawings and specification text indicating the locations and types of insulation and manufacturers information confirming the GWP of insulants used.</p> <p>Completed POL 1 Checklist</p> |
| Pol 2 NOx Emissions | <p>Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling.</p> <p>Select the most appropriate option</p> <p>Greater than 100 mg/kWh <input checked="" type="radio"/></p> <p>OR Less than 100 mg/kWh <input type="radio"/></p> <p>OR Less than 70 mg/kWh <input type="radio"/></p> <p>OR Less than 40 mg/kWh <input type="radio"/></p> <p>OR Class 4 boiler <input type="radio"/></p> <p>OR Class 5 boiler <input type="radio"/></p> <p>OR All space and hot water energy requirements are met by systems who do not produce NOx emissions <input type="radio"/></p> | | 0 of 3 Credits | - | Due to the use of Exhaust Air Heat Pumps throughout the development, this credit cannot be gained. | <p>Text describing (on drawings or in specification*):</p> <ul style="list-style-type: none"> • Details of the primary and any secondary heating systems and flue type • Dry NOX levels and/or boiler class of the primary and any secondary heating systems <p>Where a system has been specified, manufacturer's literature (internet sourced specifications are acceptable) confirming the dry NOX levels and/or boiler class of the primary and any secondary system *or a letter of instruction to a contractor/supplier or a formal letter from the developer to the Code assessor giving the specific undertaking</p> |