

**LAND SOUTH OF BURDELL ROAD
YAPTON SCHEME 18-1065-SK 07A**

**PROPOSED ENERGY STRATEGY
FOR BOVIS HOMES DEVELOPMENT**

Prepared by

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Executive Summary

- The proposed development is for 108 new residential dwellings containing a mix of market (76) and affordable (32) properties.

- In line with section 17 of the Planning Consent :-

“ At least 10% of the energy supply of the development shall be secured from decentralised and renewable or low-carbon energy sources or equivalent fabric first standards that would secure a 10% reduction in energy use. Details and a timetable of how this is to be achieved, including details of physical works on site, shall be submitted to and approved in writing by the local planning authority as a part of the reserved matters submissions required by condition 2. The approved details shall be implemented in accordance with the approved timetable and retained as operational thereafter.”

1. Introduction

The proposed development will include a mix of affordable and private dwellings built to energy standards that surpass those in the 2013 Part L building regulations by at least 10%,

The table below indicates the fabric and heating specification modelled.

Attribute	2013 Building Regulations	Bovis Specification
Floor	0.25W/m2K (U value)	0.18 W/m2K (U value)
Wall	0.30W/m2K (U value)	0.25 W/m2K (U value)
Roof	0.2 W/m2K (U value)	0.12 W/m2K (U value)
Windows	2.0 W/m2K (U value)	1.4 W/m2K (U value)
Doors	2.0W/m2K (U value)	0.9 W/m2K (U value)
Ventilation		System 3 ventilation. Air permeability 5.0 m3/hm2
Heating		Ultra erp Promax combination boilers
Hot water		From combi boilers
Controls		Programmer thermostat and TRV's
Thermal bridges		Bovis enhanced spec
Thermal masses		Calculated for each dwelling
PV panels		30.5 KWp across the site

2. Assessment Methodology

Generic SAP 2012 calculations have been done on all dwellings using the above fabric specification in conjunction with each dwellings proposed orientation on the site The specification is based on the Bovis 2018 revision B specification with the addition of PV panels to dwellings with optimum orientation. The figure of 30.5 KWp for the site has been calculated from the SAP results of all the dwellings on site.

The method used was to compare the dwelling emission rate calculated from SAP software with the Target emission rate (2013 Building regulation compliance rate) and calculating a percentage reduction from the formula below:-

[illegible]

4. Conclusion

As can be seen from the results on the previous page, the improvement of 10.8 % over the 2013 Building Regulations is achievable with this strategy. The construction design as indicated in this document will create carbon savings over the 2013 Building Regulations and exceed those specified in section 17 of the Planning Consent.

Generic SAP calculations, based on the Bovis Group Specification 2018 rev B, have been calculated to get the performance and amount of PV required.

Detailed design SAP calculations will be completed when the final working drawings become available.

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