

Himley Village : Energy Strategy Review

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Energy Strategy comments

The Energy Strategy adopts many good practice strategies and achieves a 75% reduction in operational carbon emissions. However it currently falls short of meeting BIC1, leaving some 23% of baseline energy or 25% of baseline carbon emissions unaddressed.

Detailed comments

- 1) Carbon factors: We support the adoption of SAP 10.1 carbon factors listed on p2
- 2) The adopted fabric standards meet or exceed the Future Homes Standard in many respects but there is potential for an improved specification for:
 - a. Ground floor U-value (Could be improved from 0.15 to 0.13)
 - b. Air tightness (Could upgrade from 4 to 3 and still be a good way short of passive standards)
- 3) The Be Lean stage reduces space heating demand by 11% compared with the baseline, consistent with LETI recommendations, although a 15% reduction is possible and would bring the scheme closer to meeting BIC1
- 4) We support the use of ASHP to "Be Clean" and the COP of 3.5 that has been adopted
- 5) Even with the Be Clean ASHP, space heating demand is higher than best practice schemes @ 26kWh/m²/yr. The passive design approach could be taken further to achieve a space heating demand of closer to 15kWh/m²/yr. This does require skilled installers and skilled detailing, but is achievable and has been proven on other schemes in the county.
- 6) The hot water and lighting demands of 11 and 5 kWh/m²/yr both seem sensible
- 7) Despite a good fabric approach, total energy is more than twice that recommended in LETI @ 73 vs 35kWh/m²/yr.
- 8) PV provision is less ambitious than at Elmsbrook, for example, with 2.2kWp/dwelling vs 3.7. It may well be possible to improve the available roof area for PV and to increase the installed capacity, enabling the unaddressed emissions to be further reduced.
- 9) The proposal falls short of the BIC1 requirement for zero carbon by 23% and makes no realistic proposals for dealing with the shortfall.
- 10) There is mention of making up the difference on future phases but this does not seem deliverable or likely as the higher density on future phases makes the ratio of roof area to energy demand less favourable so increased PV intensity will be unrealistic.