# Comments on the Cameron Taylor energy report for the Campion House development

## The Report's Executive Summary

"The assessment demonstrates how the Campion House development **can** achieve its obligations...". (Emphasis added.) It does not tell us what the developer's undertakings are. There is a confusion between the language of assessment and the language of commitment throughout the entire report. Is this deliberate?

The confusion is illustrated by the penultimate paragraph of the **Executive Summary** where, in discussing how the obligations on the developer can be met, we find the phrase "This has been achieved by the following ...".

The phrase "This has been achieved" means in this context "This assessment shows how the obligations **could be** achieved" and not "This report shows how the developer **will meet** these obligations". This ambiguous language leaves us unclear as to the developer's intentions.

## Section 1.0 (Introduction)

This section summarises what the consultant considers to be the broad policy context starting with the Kyoto agreement. It is possible that it is considered that all the relevant requirements are subsumed in the London Plan. We note that LZC is defined as *Low Zero Carbon* which is strictly meaningless. It should be *Low **or** Zero Carbon*. This is a small indication, amongst many others, that this report was written without a great deal of care and attention.

The section on the **London Plan** says that "The aim of the policies is to ensure that all developments beyond a particular size ensure they are designed with their environmental responsibilities borne in mind". The questionable English aside, the consultant has focused straightaway on the lack of specific requirements in the **London Plan**. We are told that "The London Plan does not include any specific target for renewable energy". This is true but what is not said is that the **London Plan SPG** on **Sustainable Design and Construction** does include such a target (see next section).

## Section 2.0 (Policy Content)

We presume that the the heading was meant to be "Policy Context"! The section gives a list of twelve major national and London guidance and regulation documents bearing on energy questions.

The main purpose of **Section 2.1** is to emphasise that, according to the consultant, PPS22 says that renewable energy should be accommodated in locations where the technology is viable and economic and where the social impact can be addressed satisfactorily. All of this tends to suggest going for a minimal approach wherever possible.

**Section 2.2** is on regional policy and specifically on the **London Plan**. Policies 4.A.7/8/9 are discussed and in each case we see the same minimising tendency at work. On 4.A.7 we read that renewable technology should be used "wherever feasible". On 4.A.9 we find "wherever feasible" again.

What the document fails to tell us is that the **London Plan SPG** on **Sustainable Design and Construction** is more specific:

> *"The Mayor **requires** a proportion of energy demand in new development to be generated by renewables on site. The Mayor's Energy Strategy suggests that this proportion should be 10 per cent.."* (Emphasis added.)

It is claimed that the GLA Toolkit on renewables has been "referred to extensively within this report". It is a pity that this referencing process failed to notice the following.

> *"Developers will be expected to demonstrate that they have explored **all** renewable energy options for a particular development."* (Emphasis added.)

Section 2.3 is on local guidelines and requirements and raises some interesting questions.

**ENV-P.2.5** is referred to as stating that the Council will "encourage" energy and resource efficiency.

> **Question**. What has the Council done in the case of this development to encourage energy and resource efficiency? Is requiring an Energy Report to be produced regarded as a sufficient encouragement to take energy questions seriously?

The same policy is also referred to as stating that the Council will promote "new developments which are energy and resource efficient in terms of layout, insulation, use of materials including ... water management."

> **Question**. How in the case of this development were these things promoted? Is it by the use of a Sustainability checklist or is there something else?

Broadly similar comments apply to the section on **ENV-P.2.6**. The report notes that while the use of renewables, such as solar heat, wind power and biomass will be "strongly encouraged by the Council", the UDP "does not include any specific target for renewable energy."

It is worth repeating that the **London Plan SPG does** include such a requirement.

## Section 3.0 (Methodology)

We read that Part L1A of the Building Regulations "unlike the GLA Toolkit, does not specify the percentage contribution to be provided by renewables". Another get out: Guidelines require it but Regulations do not!

There is more slippery language in the sixth paragraph when discussing the possibility of a 20% reduction in energy consumption: "This improvement will be based on improved building fabric U values, increased air-tightness and enhanced energy efficiencies." This "will be" is confusing since in what follows the consultant's recommendations concerning these factors are **not** found to make this saving! A problem here is that in the next section the report lumps together energy efficiency and use of renewable energy whereas these are two distinct categories of approach to energy questions. If we are right then it is rather surprising to find confusion in a report from an energy consultant.

We are also surprised that the use of high thermal capacity building materials is not mentioned. These are specifically mentioned in planning guidelines for the purpose of retaining warmth in cold periods and keeping internal temperatures down in hot periods. There is no mention of this technique, as far as we are aware, in the application papers.

We would like detail on the source for the figures in **Table 1** in the Report.

## Section 4.0 (Energy Efficiency)

As already indicated the report treats efficiency and renewable energy measures under the same heading of energy efficiency. Before outlining a number of different approaches we are told that "The intention is that a number of these measures, if economically and technically feasible, should be incorporated into the design of the building." So, there you have it. Or not.

We would like to know why **Table 2** is based on Building Regulation Part L (2002). The figures in Part L1B 2006 appear to be different. We would like this to be explained to us.

There is a really striking statement in this section in the paragraph on heating systems: "The current

design does not include lagging to the primary pipe work". Really? Is this normal? Lagging may sometimes be omitted if the primary pipe work is just a short run from a boiler to a storage tank. In that case lagging may be useful but is not likely to lead to large savings. If it is anything other than such a short run that is being referred to then one would have to ask why lagging is not regarded as standard.

The same section says that the residential boilers will of the combi-condensing type. There are advantages and disadvantages of these compared to standard boilers, especially for larger households. These are not discussed. Quite apart from this there is no discussion of the advantages and disadvantages of CHP despite its known much greater efficiency. What the compilers of the report do not explain is how the solar heated water will be used accessed. This is normally done by means of an immersion heater in a hot water storage cylinder!

This section ends with the promise that the specifics of achieving 20% savings "will be fully quantified during detailed design when definitive figures are available".

**Table 4** summaries $CO_2$ emissions for a "typical 2-bedroom" apartment of 81m$^2$. It is interesting that CHP would offer by far the greatest savings. Consideration of CHP is excluded because "the project does not include for centralised plant". *This seems to amount to saying "We have not considered CHP because it is not in our plans".*

## Section 5.0 (Renewable Technologies)

This section lists the various renewables that the London Toolkit requires developers to evaluate. It has to be said that this evaluation does not even rise to the level of perfunctory in some cases.

| ***Renewable*** | ***Report conclusion (our comments in italics)*** |
|---|---|
| Ground source heat. | There is no demand for cooling since the units have natural ventilation.<br>*Ground source can provide both heating and cooling. We have just had the hottest summer on record. It is expected that summer temperatures will continue to increase. The idea that open windows will provide sufficient cooling for the next 60 years seems to indicate a somewhat offhand approach. If current trends continue people will feel the need for cooling systems. If no provision is made to keep internal temperatures down by various means then people will install individual cooling systems with unsightly hoses hanging out of windows.* |
| Biomass heating | No supplier found.<br>*Is this serious? Biomass wasn't considered because a supplier could not be found. An initial search seemed to indicate a number of firms ready to supply to the West London Area. The real problem is that Biomass would require a complete re-thinking of the approach to the provision of heating for the development.* |
| Biomass CHP | Due to irregular water usage this could result in heat dumping.<br>*Why would this result in heat dumping? And how would this compare with the greater efficiency of such a system over individual heating systems. There is no discussion.* |
| Solar water heating | Feasible. |
| Photovoltaics (rooftop) | Solar water heating is more efficient.<br>*Solar water heating may be more efficient but the two techniques are not necessarily mutually exclusive. They would only be so if all the available roof space were taken up with solar water heating panels. It is not argued that this is the case. As elsewhere there is no argument at all.* |

| *Renewable* | *Report conclusion (our comments in italics)* |
|---|---|
| Photovoltaics (cladding) | May raise planning concerns. Would require a detailed study of site design. Has not been further investigated.<br>*Photovoltaics would raise no more concerns than the developer's proposal to use zinc or terne cladding. Why the sudden concern for the effect of voltaics? It is not at all clear that appropriate places could not be found to site such cladding. There are now a variety of types of photovoltaic panels avaiable but these are not discussed.* |
| Wind turbines | This would be site specific. This option has not been developed further.<br>*What kind of an argument is this? It would be site specific. So?* |

The report estimates that to achieve a 20% reduction in the carbon emissions as compared with a notional building with the same floor area it would be necessary to reduce the emissions by 121,669.71[1] kg/annum. The improved lagging, better boilers, better air-tightness etc., is said to save 92,502.95 kg/annum. This leaves a shortfall of 29,166.76 kg/annum. It is then calculated that 331 $m^2$ of solar panels would be required to make up the shortfall. Strangely there is no discussion of the feasibility of this amount of panelling.

## Section 6.0 (Results)

Essentially this summarises the previous sections. No new points. We note only the repeated statement that the report outlines the technologies that *could* be applied (which it actually fails to do) and that it merely *recommends* what it considers the most suitable.

## Section 7.0 (Conclusions and Recommendations)

We are told that the technologies which are applicable will include high efficiency systems and renewable technologies and that the key energy efficiency systems would be improved air tightness, improved insulation, use of condensing boilers, and low energy lighting. Finally the proposed renewable technology would be solar water heating.

The claim is made that the scale of use of renewables has been limited out of respect for the conservation area! This presumably means that the consultant feels that photo-voltaic cladding is intrinsically ugly as compared with the zinc/terne cladding that the developer has proposed. The Photovoltaics on the Church Hall in Church Road are not an ugly sight.

## OUR Conclusion

If this report was supposed to give information about the developer's intentions regarding the Campion House development then it has to be said that it fails to give a clear idea of what exactly is being proposed. We have not yet had time to check on all the figures and references but we trust that someone in the Planning Department will do so, so that detailed comments can be included in the report for the SDC meeting on 13th November. We were told by Paul Draper that the non-production of this report would be, by itself, sufficient grounds for refusing the application. If we are right in thinking that this report is insufficiently clear about the developer's commitments then we assume that this would also be considered sufficient grounds for refusal. If this were not the case then the developer would have no stronger obligation than to produce a document entitled “Energy Report” however inadequate.

Campion Concerns, 25th October 2006

1 The writer of this report does not seem to appreciate the need to round down figures obtained from calculators. The precision of the figures given for carbon emissions bears no relation to the accuracy with which they could be established.