

Lambert, Fiona

From: BarryVale FOE [REDACTED]
Sent: 17 November 2020 15:54
To: Planning
Subject: Fwd: Cosmeston Upper Farm: Application 2020/01170/OUT

To: <developmentcontrol@valeofglamorgan.gov.uk>, Lankshear, Robert <rlankshear@valeofglamorgan.gov.uk>
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Further information needed on Energy Efficiency performance

The applicants say in the Environmental Statement

DAT 4 5.10likely energy performance of the dwellings which will be built to meet a low energy performance standard.

They then claim

Using solar modelling to predict how much energy is available on the footprint of the site, we have shown that it is possible for this development to deliver **Net Zero Operational Energy**.

There's no published reference but an implication of a specific analysis for this site. Could you please ask the applicants to supply this analysis?

Let's point out it's a surprising claim. Their pictures show only an integrated solar roof plus heat recovery system, but no modern technology solar facades or windows, nor heat pumps (air or ground source). Because solar power is off at night and low in overcast conditions, substantial battery storage would be needed, especially March-April and October-November. They said at the pre-app stage that it would be possible to upgrade the thermal insulation in 2030 to achieve zero heating, but this is not stated (still less offered from the outset) so electric heating is required.

This implies that for *net-zero operational energy*, their modelled solar would have to suffice with sub-optimal thermal insulation and all year round. This is not credible. Moreover, to last through winter requires substantial storage, via battery or underground heat store. Professional energy specialists would consider wind turbines for winter-time in such a location, so the applicants have to justify not including wind-power for this development.

As you are aware, the Welsh Government and PPW take the issues of energy efficiency and zero carbon seriously. Penarth Town Council have criticised the consultants' limited thinking on them. The Council's energy efficiency officer might already have asked for the relevant information, but nothing is posted in the web-file on it. The EIA Regulations require information on the modelling and uncertainties to be included in the ES. Would you therefore obtain documentary backing for the claim that solar alone could deliver *Net Zero Operational Energy*, and any other studies showing compliance with WG and PPW policies in this matter.

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