

Euston Tower – BREEAM Retail Assessment Rating

It is noted that the retail unit does not meet the requirements of local plan policy CC2, in that it currently has a 'Very Good' rating target under the BREEAM V6 New Construction scheme. The reasoning for this centre on both the shell only scope of these units, and the contradictory aesthetic and performance requirements for ground floor retail spaces from Sweco experience. To provide some context, in the BREEAM V6 New Construction scheme it is a mandatory requirement that a minimum of 4 credits are achieved under the Ene01 'Energy Performance' section. The outputs of the Building Regulations UK Part L compliance model (BRUKL report), created using approved DSM software, are used to support the award of credits under Ene01. The 'Energy and CO2 Emissions Summary' table at the end of the BRUKL report is used to complete the BRE's V6 Scoring and Reporting Tool inputs, which uses these modelled outputs to assess energy performance and award credits.

For shell only developments, in recognition of the fact that no building services are typically installed, and therefore energy performance is limited to the performance of the building fabric, the BRE's calculation for BREEAM Ene01 requires input of the modelled heating and cooling demand only.

Sweco internal sensitivity analysis has demonstrated that in the vast majority of cases, shell only retail assessments fail to achieve a heating and cooling demand that is below the notional building value. Therefore, in most cases, no credits will be awarded for Ene01, and the minimum requirements of 4 credits is not possible to meet. There are some critical design features of retail units that compound this issue:

- Glazing area: Requirement for large areas of glazing to facades – very important for retail customer interfacing, display, and marketing. This has a negative impact on building performance; an energy-efficient façade is typically 40% glazed, whereas most retail facades typically have a higher percentage of glazed area.
- Glazing g-values: further to the inherent large glazing area to retail facades, the glass also needs to be fairly clear to attract customers and for view out, and therefore the ability to control solar gains to the space through suitable solar coatings is significantly diminished. This in turn increases the cooling demand, which is typically an energy-intensive process, and pushes the 'heating and cooling demand' past the notional threshold.
- Building services: the lack of option to use high-efficiency building services to offset the relatively poor building fabric performance means that credits are now very hard to achieve. It is not possible to know what systems the retail tenant will install in their unit, and therefore in a shell only scenario they are not accounted for in the V6 credit calculation.