

Sustainable Procurement

WINNER

University of Glasgow - Integrating energy efficiency into building procurement

The University has won several awards for its energy conservation activities, and has sought to ensure that the topic is considered seriously at all stages of tendering and design for the £30 million per annum of new buildings it is currently developing. Three processes have been developed to achieve this:

- An Energy Conservation Brief for suppliers
- Use of BREEAM throughout the process
- Post-occupancy evaluation of energy consumption.

Potential suppliers are sent an Energy Conservation Brief, which sets out the University's expectations about, for example, maximum use of natural daylighting and ventilation. The Brief is subsequently discussed in detail with the successful design team, who must provide an Energy Assessment at an early stage of the process.

The design team is then required to use BREEAM (the Building Research Establishment Environmental Assessment Method) to assess the sustainability of the building. In the initial stages BREEAM is used as a design guide and spur to improvement, with formal certification occurring once the design has been finalised. Three buildings have been certified to date - the Beatson CRUK Cancer Research facility (Very Good), the Computing Science building (Very Good) and the Rowardennan Field Station (Excellent). The design team is also required to assess the building one year after handover to demonstrate that projected energy consumption is being achieved.



Glasgow's Energy Conservation Officer, Albert Young, believes that "the process has created many improvements in the energy efficiency of ventilation, heating, lighting and other features of the design." He gives specific examples such as a triple glazed, low emissivity façade in the Beatson facility, and a ground source heat pump at Rowardennan. "This wouldn't have happened without our formal requirements," he continues. "Equally important was the fact that we sent a strong message to suppliers right from the start of the contract that energy and environment are important issues for the University."

Albert Young

Judges' Comments on Sustainable Procurement

The scale of the current development of new and refurbished buildings in higher education means that it is vital to achieve good energy and environmental performance in them. Otherwise, the sector will face a serious cost penalty over the lifetime of the building as prices rise and, conceivably, some retrofitting is required by stricter regulations. The evidence is that the most cost-effective method of achieving this is in the pre-design and design stage, when features such as the location, orientation and internal lay-out of buildings, and the specification of buildings services have some fluidity. The University of Glasgow has made an impressive - and potentially replicable - attempt to highlight the issue to design teams through formal embedding in its capital development processes. The process also means that specific energy efficiency measures are given full consideration at later stages of the design. The benefits are already clear - as with the 2.7 year payback on energy efficiency measures installed into the University's Biomedical and Cardiovascular building.