

SUSTAINABLE BUILDINGS IN DEFRA



Refurbishment of Nobel House, Smith Square, London

Defra has been working to refurbish buildings on our estate to high sustainable standards. As the Nobel House building is Grade II listed and in the sensitive Whitehall Conservation area, the main challenge was to construct a completely new building behind the existing façade.

- During the works, a high proportion of demolition waste was recycled and wherever possible timber from the old building was re-used in the new, with all new timber coming from certified sustainable sources.
- In order to meet the landlord's request for air conditioning, an ammonia based system was chosen, which will not contribute to global warming or ozone depletion.
- The design incorporates many water and energy saving measures and improved recycling facilities. The project was awarded the Royal Institute of Chartered Surveyors (RICS) Sustainability Award for 2005.

An extremely high standard of sustainable design, construction and operation was also adopted in the major refurbishment of the London HQ site, at Nobel House. Features include:

- high levels of recycling and re-use of construction waste (70%);
- reduction of packaging waste coming onto site;
- use of recycled materials in the fit-out (50%);
- all new timber from certified sustainable sources;
- redundant office furniture given to charity for re-use;
- old carpet tiles sent for reconditioning and further use by charities;
- use of sheep's wool insulation that is bio-degradable and non-toxic;
- natural ventilation using stack effects of windows in a covered atria;
- comfort cooling for internal rooms provided by ammonia chillers;
- installation of a combined heat and power unit to reduce the building's carbon impact;
- installation of solar controlled intelligent lighting systems that respond to natural light levels.

The refurbished building was awarded an 'excellent' BREEAM rating, achieving the highest score to date for both new and refurbished office buildings. It has also recently been announced as London Region winner in the RICS sustainability awards.

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