



SUSTAINABILITY

WINNER 2014

Heathrow Terminal 2A



Terminal 2A is a shining example of what can be achieved when sustainability is embedded throughout the lifecycle of a project. One of the largest privately funded construction projects in the UK, T2A will produce 40% less CO₂ than the Terminal 2 and Queens Buildings it replaces, with 20% of the energy coming from renewable sources. This is the most energy, water and resource efficient airport terminal ever built – a fitting gateway for 21st century Britain.

T2A was a pilot scheme for the UK's first BREEAM airport assessment, achieving an 'excellent' rating and setting the benchmark for future airport terminals around the globe.

Sustainability has been at the heart of the project, embedded and embraced at all levels, from the earliest stages, through to the operation of the finished building. For instance, HETCo implemented a construction sustainability model engaging the client, stakeholders and the supply chain. The 'Supply Chain Directors Pre Launch' contractually required the director of every subcontractor to visit the site, understand their environmental responsibilities and agree to meet or surpass HETCo's stringent sustainability requirements.

The sustainability strategy promoted industry-leading sustainability performance across the project, driving innovations such as 'Green Rooms' to dramatically reduce waste. Numerous innovations contributed to the creation of T2A. Designers optimised resources

and efficiencies by adopting standardisation, prefabrication and modularisation (SPAM) principles, and considering lifecycle and sustainability issues in the selection of materials.

The terminal ceiling is dominated by a 'soffit fabric' – a white tensile PTFE coated fibreglass which not only improves the passenger experience, but also provides intuitive wayfinding through the ceiling undulations.

Sophisticated lighting control systems reduce energy use by switching off lights when areas are not in use or when daylight is bright enough.

The terminal is powered by renewable energy, with 1,000m² of photovoltaics and one of the largest biomass boilers in the UK. The boiler uses FSC approved woodchip, sourced within 100 miles of the airport. 100% of the ash produced will be recycled and blended with existing secondary agricultural fertilizer.

Its design and construction has supported 35,000 jobs nationwide. From design to completion, the project has taken six years, with more than 200 suppliers, 25,000 workers (including a peak workforce of over 4,000) and challenging timescales – all while working within the live operational environment of the world's third busiest airport.

T2A's sustainability achievements are all the more impressive given the scale, deadlines and logistical challenges associated with this project.

Judges' comments

The approach taken was highly collaborative from the start, with real supply chain engagement and enthused suppliers. HETCo demonstrated leadership in sustainability across the board – from strategy, through to detailed working on site. The project embraces all aspects of sustainability – economic, social and environmental and HETCo's commitment to sharing best practice will help to move 'standard practice' up a gear.



Heathrow
Making every journey better

FINALISTS

- Forest Hill Estates Improvement Programme: L & Q Group
- Heathrow Terminal 2A: HETCo – A Ferrovial Agroman, Laing O'Rourke Joint Venture
- Medmerry Managed Realignment: Team Van Oord
- Newbury Flood Alleviation Scheme: Environment Agency
- Relish Smartwire™: Relish, Worthing Homes
- Thameslink Programme: Network Rail
- WWF Living Planet Centre: Willmott Dixon Construction