

Beddington Zero-Energy Development

The project

Beddington Zero-Energy Development (BedZED), Sutton, London, is a high-density mixed-use urban village on the site of a former sewage works developed for the Peabody Trust. The 82 dwellings are built to a density of 75 dwellings per hectare. It has a mixture of housing types (flats, maisonettes and town houses), uses (residential, commercial, community, open space) and tenures. It is well served by local transport which connects the project to the centre of London (Figure C.21).

Sustainability features

The underlying objective of Bill Dunster's Zed projects is to reduce the environmental impact, give residents the ability to live sustainably without decreasing their quality of life of residents (Bill Dunster Architects, 2003; Dawson, 2004). This is translated into sustainable practices that are based on being carbon neutral, increasing energy efficiency in the home, linking to a sustainable transport network and on getting food direct from 'farm to plate' (BedZED, no date). These include the use of reclaimed building materials, 135 kw wood fuelled combined heat and power generator, building orientation (Figures

C.22–C.24) to maximize solar gain, on-site water treatment and grey-water recycling, promoting sustainable alternatives to the car (including photovoltaic power to charge up electric cars) and the siting of community facilities within the residential development. Bill Dunster has extended the principles to even higher densities in a proposal for a sustainable high-rise form, 'SkyZed' (Figure C.24), which is built around a wind turbine and photovoltaics to generate the energy needed for the scheme.

References and links

- BedZED (no date) *About BedZED*. Retrieved from the World Wide Web on 28th July 2004 <http://www.bedzed.org.uk/main.html>
- Bill Dunster Architects (2003) *From A to ZED: Realising Zero (fossil) Energy Developments*, Bill Dunster Architects ZEDfactory Ltd, Wallington, UK.
- Bill Dunster Architects (no date) *Zero Emissions Development Web Site*, Retrieved from the World Wide Web on 28th July 2004 <http://www.zedfactory.com/home.html>
- Bill Dunster Architects (no date) *BedZED*. Retrieved from the World Wide Web on 28th July 2004 <http://www.zedfactory.com/bedzed/bedzed.html>
- Dawson, R. (2004) *Towards Good Practice in Sustainable Urban Land Use*, Bristol LA21 Land Use Group and The Architecture Centre, Bristol, Woodside Press, Bristol.

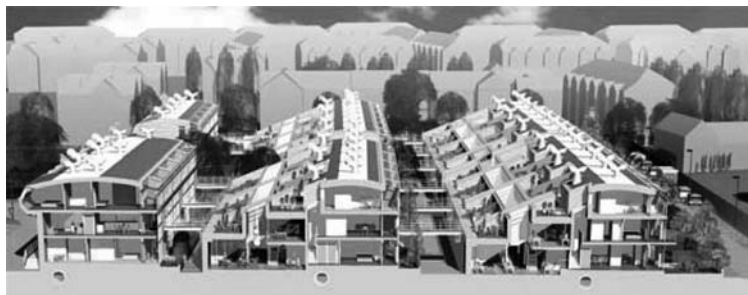


Figure C.21
A variety of house types, and an integration between living and work units.
(Source: www.zedfactory.com)



Figure C.22
Orientation and design to take advantage of passive solar gain.
(Source: www.zedfactory.com)



Figure C.23
Using the roofs to give private gardens in a high-density development.
(Source: www.zedfactory.com)

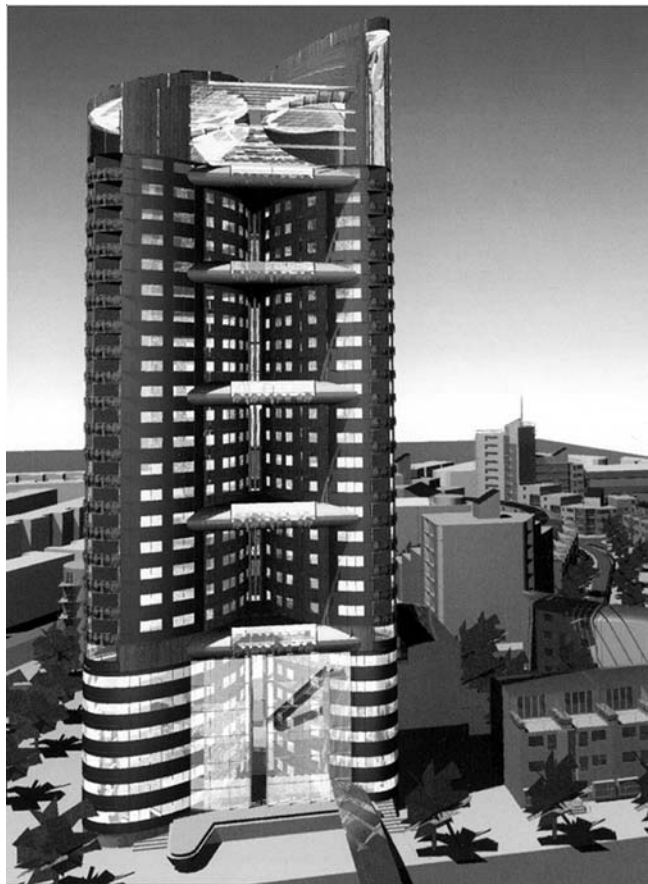


Figure C.24
SkyZed, a sustainable high-rise solution.
(Source: www.zedfactory.com)