

453 Southbury Road, Enfield

Axter's fully integrated photovoltaic roof membranes generate 17,600 kWh of renewable electricity per year



Architect
West & Partners



Client	London & Quadrant Housing Association
Main contractor	Denne Construction
Roofing subcontractor	E J Roberts Roofing Ltd
Axter accredited electrical partner	South Facing Ltd
Type of development	Private residential apartment block with ground floor commercial units.
The concept	Planning permission required 10% savings in CO ₂ emissions through the use of renewable energy. The lightweight, MCS accredited , Axter General Solar PV system, chosen on the grounds of cost, was designed to generate at least 17,600 kWh with a saving of 10,000 kgs of CO ₂ per year. The installation could earn £5,500 from the feed-in tariff and save tenants / owners a further £2,000 in annual electricity charges per year.
Roofing	The main roof construction was of an inverted design under gravel and paving slabs but also incorporating a small area of extensive green roof. The renewable energy requirement was provided by a fully integrated warm roof construction incorporating a thin film photovoltaic array.
Size of roof	3,500 m ² inverted including 675 m ² of extensive green roof plus a 355 m ² warm roof with a photovoltaic cap sheet.
Axter materials	Inverted roofs – WILOTEKT-PLUS, insulation, paving slabs, gravel Extensive green roof – WILOTEKT PLUS, insulation, Drainax G, Axter hydroponic mineral substrate, sedum mat, Warm roof – Solar base layers with a surface of 54 No. 408 Wp Axter General Solar PV modules.