



## 1.7 MWp PV Installation, North Suffolk

### Scope:

1.7 MWp PV Installation, Promens Packaging, North Suffolk

### Client:

Grouptec Tecnologia Solar

### Value:

£4m

### Completion:

June 2011

### Services Provided by J Tomlinson:

M&E

Energy Efficiency

## Project Background

Promens Packaging in Lowestoft develops plastic packaging for medical, personal care, chemical, household and food markets. The UK's largest solar energy developer, Lightsource Renewable Energy Limited, approached Promens with a PV proposal to improve its carbon footprint and green credentials and also to reduce energy costs at its plant in North Suffolk. This proposed PV installation also allowed Lightsource and its investors to take advantage of the financial rewards offered by the Feed in Tariff, which in 2011 offered its highest returns. As this rate was due to change in July 2011, it was therefore very important that the PV installation project was completed by 30<sup>th</sup> June 2011.

## J Tomlinson's Solution

J Tomlinson became principal contractor for the 1.7MWp PV installation at Promens Packaging. The project involved the installation of over 7000 roof-mounted PV panels within a 6 week period completing on 30th June 2011. The project included the pre-installation survey and full design, structural calculations to ensure the existing roof construction could take the increased load of the panels as well as the supply, installation and commissioning of the PV panels and fixing rails, inverters, G59 metering and associated civil engineering works. The installation covered a surface area of over 7,000m<sup>2</sup>. The panels were secured directly to the roof cladding with neoprene washers to maintain the weatherproofing properties. The panels used on this installation were REC with 96 x 15Kw SMA inverters feeding into 2 x 1000KVA transformers. The main project challenge for J Tomlinson was to complete the scheme within the extremely tight programme required by Lightsource Renewable Energy and their investors so as to secure the highest possible Feed in Tariff. We worked closely with the end client providing regular communication and minimal disruption and the project was delivered within the required timescale.

Adrian Banks, Engineering Manager at Promens Packaging commented on the installation saying, "I think it has put out a very positive message to our staff and customers alike. It's difficult to say if business has been won as a direct consequence, but our Greener credentials certainly impress when customers visit our site and see our aerial photos. As a company, one of our key values is to have the courage to challenge conventional wisdom and react quickly to new technologies and opportunities. So, when Lightsource first approached us in March 2011, we adopted the idea of the solar installation very quickly - a decision that we're very pleased we made."

## Project Achievements

**FORMERLY THE UK'S LARGEST ROOF-TOP SOLAR INSTALLATION.**

**CLIENT SAVED OVER £25K IN 3 YEARS** through a reduction in their Climate Change Levy tax obligation on their energy bill.

**A SAVING 1800 TONS OF CO2 TO DATE.**

**PRODUCED 3.4GWH OF ELECTRICITY TO DATE.**

**INSTALLATION PRODUCED 7% OF THE CLIENT'S TOTAL DEMAND**, with further £65K electricity saving on their bill to date.

**INSTALLED SOLAR PANELS TO GENERATE SUFFICIENT 'GREEN' ENERGY TO SERVE THE FACTORY'S NEEDS** with excess being fed back into the National Grid.

**PROJECT COMPLETED ON TIME WITHIN 6 WEEKS** securing the highest possible Feed in Tariff for Lightsource Renewable Energy Limited and its investors.

**WE ENSURED CLIENT MAINTAINED FACTORY OPERATIONS** throughout the duration of the works.

**OVERALL SITE CONTROL FOR EUROPEAN WORKERS**, including site inductions, delivered in different languages.

**WE MANAGED THE FACTORY SHUTDOWN** to incorporate new LPV distribution system.

**WE INSTALLED VARIOUS SPECIALIST DETERRENTS TO SUCCESSFULLY DISCOURAGE THE LARGE LOCAL SEAGULL POPULATION** from landing and nesting on PV panels.

**WE INSTALLED ROOFTOP WATER** points to ensure the installation was maintainable.

