



WWF Low Carbon Manufacturing Programme (LCMP)

Quarterly Newsletter

April 2015 Issue

Success Story

Positec Machinery (China) Co., Ltd. was established by Chinese investors in 1994. The company specializes in the manufacture of power tools. The Positec factory is located in Suzhou in Jiangsu Province and integrates research and development, manufacturing and sales. Positec joined the LCMP in 2012 and in these years, the factory has adopted numerous carbon reduction measures and achieved impressive results. In both their 2012 and 2014 verifications, Positec received an LCMP Platinum label.

The company's accomplishments include:

- Adopting an on-site capacitor compensation device for high-powered factory facilities, raising the power factor and optimizing the efficiency of the in-house electricity operation. This device has reduced Positec's annual electricity consumption by more than 2,500,000 kWh and lowered carbon emissions by more than 1,800 tonnes annually.



On-site capacitor compensation device

- The company's new global headquarters, completed in 2015, has numerous green features integrated into its design such as a solar PV system, ground source heat pump, natural lighting and ventilation, rainwater recycling and an intelligent energy management system. The new building is expected to reduce the company's annual electricity consumption from the grid by more than 1,000,000 kWh and lower carbon emissions by more than 750 tonnes annually when compared with a conventional office complex.



Positec new global headquarter building (Draft)

- Recycling industrial waste water through biochemical treatment, with a recycling efficiency of up to 80 per cent.



Waste water recycling tank

Environmental news

“Solar Impulse 2” – the first solar airplane to journey around the world

Dreams can become reality! The first round-the-world flight by a solar airplane in human history began in March this year in Abu Dhabi. Two Swiss pilots are now in the midst of an epic journey through 12 countries, including China, which will total 35,000 km. They plan to complete the journey within five months. The Solar Impulse 2 is fuelled entirely by solar energy and consumes zero fossil fuels. The plane's power comes from 17,000 solar cells located on its body. This pioneering flight has not only opened a new chapter in the exploration of clean energy, but is also playing an important role in discovering new applications for renewable energy. Find out more at:

<http://sn.people.com.cn/BIG5/n/2015/0409/c357106-24442435.html>

LCMP updates and activities

The LCMP is organizing a series of engagement activities in June 2015:

- Webinar about energy efficiency and carbon emissions
- A Low Carbon Seminar co-organized by Intertek Testing Services Hong Kong Limited
- Preparation work for the new LCMP promotional video

For more details, please contact the LCMP team at any time!

Low Carbon Tip: Solar energy application

To help combat global resource shortages and the growing problem of climate change, a number of solar energy-related products have been introduced in recent years and are now available on the market. Current solar energy products used in factories fall into two categories: (1) installation of solar heaters, which convert solar radiation into heat energy, providing heat to hot water systems in dormitories and production areas; (2) installation of solar photovoltaic (PV) systems for in-house electricity generation. Investment in PV systems can be made solely by a factory, resulting in a direct reduction in electricity consumption from the grid and a consequent reduction in costs. The investment can also be made by the related service provider – they rent available roof space from a factory and install a PV system. The factory then enjoys a subsidized electricity supply from the service provider.

Best Practices: Guangdong Atlan Electronic Appliance Manufacture Co., Ltd.- Electrical Appliances and Houseware Industry

Guangdong Atlan has implemented several carbon reduction measures in their general utility and production facilities.

Steps taken by the company include:

- Using capacitor discharge rowing welding machines to save electricity, efficiently utilizing stored current and increasing output at the same time;
- Adopting laser cutting machines to improve cutting quality and reduce the frequency of mould-making, creating both energy and cost savings;
- Adopting an automatic robot welding arm, improving quality and raising productivity in the welding process ;
- Installing capacitor compensation devices throughout the electrical system, raising the power factor and reducing electricity wastage;
- Installing occupancy sensors and LED lamps in the corridors to improve the energy efficiency of the lighting system.



Laser cutting machine



Welding robot arm



Capacitor compensation device



Occupancy sensor & LED lamp



Capacitor storage welding machine