



WWF Low Carbon Manufacturing Programme (LCMP)

Quarterly Newsletter

August 2016 Issue

Success Story

Jun Wei Apparel Co., Ltd. (“Junwei”) is located in Zhuhai City, Guangdong Province. Along with the factories in Shenzhen City, Vietnam, Bangladesh and Myanmar, Junwei is one of the subsidiary factories of Hong Kong Lawsgroup. Established in 2004, the company specializes in the manufacture of cotton knitted garments. Junwei has prioritized environmental protection and social responsibility in its business practices. Junwei joined the LCMP in 2016 and received a Gold label in the same year of verification. The factory has adopted numerous carbon reduction measures with the following results:

- Installing variable frequency drivers (VFDs) in washing machines and dehydrators, reducing the overall average power. The VFDs have saved annual electricity consumption per machine by 1,500 and 6,000 kWh respectively, and have lowered energy consumption by 25% and 63% respectively.



VFD in washing machine



VFD in dehydrator

- Recovering energy from water condensate to preheat water in boilers, reducing energy consumed during the preheating process and hence lowering carbon emissions. The recovery system has saved annual oil consumption by 60 tonnes and has lowered energy consumptions by 14%.



Boiler



Water tank

- Replacing diesel-fuelled water heater with solar water heater in the dormitory, reducing diesel consumption by 39 tonnes and lowering operating cost by 84%.



Solar panel



Heat preserving water tank

Environmental news

Remarkable carbon emissions reduction in China

From 2005 to 2015, China achieved remarkable results in promoting energy efficiency and lowering carbon emissions. Over the decade, China reduced its energy consumption by 1.57 billion tonnes of standard coal, equivalent to reducing carbon dioxide emissions by 3.6 billion tonnes. The proportion of coal used in energy consumption fell from 72% to 64% while that of non-fossil energy increased from 7.4% to 12%. Compared with 2005 figures, capacity of various electricity generating facilities in China in 2015 increased by: 1.7 times in hydropower, 100.8 times in wind power, 615 times in solar power and 33.8 times in biomass power. Transitioning to a low carbon economy with GDP growth decoupled from carbon emissions growth, the world is not far away from the road to zero carbon development. Find out more here:

<http://en.people.cn/n3/2016/0621/c98649-9075272.html>

LCMP updates and activities

The LCMP is organizing a series of engagement activities over the coming months:

- Launch of new LCMP promotional video (Sept)
- Launch of new LCMP e-learning platform (Sept)
- Media trip to LCMP factories (Aug)
- Webinar on energy efficiency and carbon emissions (Sept)

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

Sustainable Apparel Coalition: The Higg Index

The Higg Index is the core driver of the Sustainable Apparel Coalition (SAC). It empowers brands, retailers and factories of clothing industry to examine their commitments to environmental protection, social responsibility and labor relations. The Higg Index provides a self-assessment platform for companies to measure and improve their performances in these areas. One important part of the Higg Index is about the energy usage and greenhouse gas emissions. The LCMP can help companies in this crucial component to improve energy efficiency and lower carbon emissions. To know more about the Higg Index, click here:

<http://apparelcoalition.org/the-higg-index/>

Best practices: Leo Group Co., Ltd. - Machinery, Equipment, Apparatus and Components Industry

The Leo Group has implemented several carbon reduction measures in their general utility and production facilities. Steps taken by the company include:

- Replacing hydraulic system with servo motoring system on metal casting machines, with a 12-month payback period. The change has reduced electricity consumption by more than 40% and lowered annual electricity consumption by 600,000 kWh.
- Replacing variable displacement pump with servo drivers and plunger pump on injection molding machines, reducing electricity consumption by more than 20%.
- Adopting a new micro-computer automatic controlling system in compressed air system, reducing electricity consumption by 20%.
- Installing heat-pump water heater and energy-saving lamps in dormitory, lowering carbon emissions by 30 tonnes annually.
- Adopting electric-powered forklifts in factory area and recycling waste batteries, lowering carbon emissions by 60 tonnes annually.



Servo motor controlling system on metal casting machine



Servo injection molding machine



Micro-computer air compressor



Electricity charged forklift station



Heat pump water heater