



# WWF Low Carbon Manufacturing Programme (LCMP)

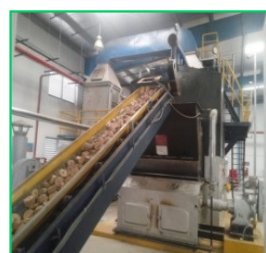
## Quarterly Newsletter

April 2017 Issue

### Success Story

**Regent Garment Factory Ltd.** is one of the subsidiary factories of Hong Kong-based Crystal Group, whose clients are based mainly in the U.S., Europe and Japan. Located in Hai Duong Province, Vietnam, the factory specializes in the manufacture of sweaters and cut-and-sewn knitwear. Regent joined the LCMP in 2016 and received a Platinum Label the same year. In accordance with its parent company's environmental philosophy, Regent is committed to producing high quality products and minimizing its factories' impact to the environment, while also contributing to the community in a positive way. The company has implemented a number of measures:

- Replacing their diesel-driven boilers with biofuel boilers, saving 420,000 liters of diesel annually, lowering carbon emissions by almost 100%, or more than 1,100 tonnes annually.



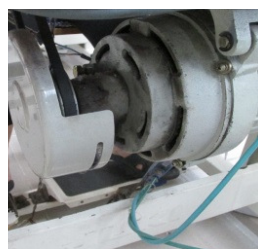
**Biofuel boiler**

- Installing a hot water tank and pipeline to utilize return steam and condensate water from garment dryers for heating water in washing machines, saving 14,700 tonnes of steam monthly.



**Heat recovery from steam**

- Installing energy saving "servo motors" to replace more than 3,000 traditional motors in the factory's sewing machines, reducing Regent's annual electricity consumption by 250,000 kWh and lowering carbon emissions by more than 160 tonnes annually.



**Servo motors in sewing machines**

### China Carbon Trading Market Sprinting in the final stage

The world's largest carbon trading market will be launched in China in late 2017. In the initial stage, carbon prices were estimated to be around RMB\$30 per tonne, which is the average price in the existing seven pilot markets. The initial annual carbon quota is estimated to be around 3-5 billion tonnes, which is even bigger than the existing world's largest EU carbon trading market (EU-ETS) with 2 billion tonnes of annual quota. According to the National Development and Reform Commission in China, the first batch of enterprises to enter the carbon trading market were in the petrochemical and power sectors, along with chemicals, construction materials, steel, nonferrous metals, papermaking and aviation. Enterprises with annual energy consumption more than ten thousand tonnes standard coal must enter the market. It is estimated that about seven thousand enterprises, accounting for half of the country's total carbon emissions, will participate.

Find out more here: <http://www.tanpaifang.com/tanjiaoyi/2016/1209/57852.html>

### LCMP updates and activities

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

- Webinar on energy efficiency and carbon emissions (April)
- Launch of new LCMP promotional video (May)
- Coordinate with LCMP factories for verification issues (June)

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

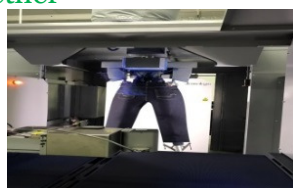
### Greenhouse Gas - Sulfur Hexafluoride (SF<sub>6</sub>)

Carbon dioxide and methane are our most familiar greenhouse gases. We rarely talk about "Sulfur Hexafluoride" which is actually one of the six greenhouse gases in the GHG Protocol that enterprises have to include in their carbon emissions. SF<sub>6</sub> is a kind of colorless, odorless and non-toxic gas, with the global warming potential 23,500 times greater than carbon dioxide. Due to the inert properties, SF<sub>6</sub> has an excellent electrical insulation characteristic. Hence, it is generally used as a medium to interrupt electric currents in circuit breakers or switch devices in high-voltage electronic equipment.

### Best practices: Changzhou Baolai Garments Co., Ltd.- Wearing Apparel Manufacturing Industry

**Changzhou Baolai Garments Co., Ltd.**, located in Jiangsu Province, is the subsidiary factory of J.D. United Manufacturing Co. Ltd.. Established in 2008, the factory specializes in garment washing and development. Changzhou Baolai joined the LCMP in 2014 and received a Gold label the next year. The factory has adopted numerous carbon reduction measures, including:

- Adopting laser embroidery machines to make patterns on fabrics, reducing water and energy consumption by 60 per cent and chemical consumption by 85 per cent
- Installing a chemical free ozone washing machine to produce bleaching effects, saving a huge amount of water and reducing production time
- Installing combined dye-wash machines, mixing raw materials and chemical additives into a nano-state by centrifugal pumps, not only reducing water and chemical consumption but also increasing productivity
- Posting LCMP policies and newsletters on notice board to enhance staff knowledge on low carbon
- Providing staff with regular training, letting them know the company's carbon emissions reduction plan and setting the corresponding targets together



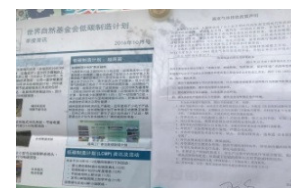
**Laser embroidery machine**



**Ozone bleaching machine**



**Dye-Wash**



**LCMP policy & newsletter**



**Staff training**