



Energy from waste water, China

This project captures methane that is emitted from wastewater in a brewery and uses it for clean power generation. The project improves the lives of locals and contributes to sustainable development in China.

Location



The project is located at the Zhujiang Beer Company in Guangzhou, the capital city of Guangdong Province. Guangzhou, situated north of the Pear River delta, is an important trading center and busy port.

Project



Because of its long-standing efforts to improve the environmental performance of its facilities, the Zhujiang Beer Company has gained strong recognition as an environmental leader in the Chinese brewery industry. In 2005, the company won the “National Environmentally Friendly Enterprise” award by the State Environmental Protection Agency.

With their climate protection project, developed under the strict rules of the Gold Standard, the company is diminishing their carbon footprint and generating sustainable energy from wastewater that is released during the brewing process. In addition, strong odours and potentially harmful gases are being avoided, which benefits the local population.



Prior to the implementation of the improved wastewater treatment project activity, anaerobic digestion was a part of the wastewater treatment process. The system did not have biogas recovery devices, and methane-rich gas was released to the atmosphere. Methane is a greenhouse gas 21 times stronger than CO₂.

The project activity consists of a biogas recovery system, a biogas purification device, and power generators. The project activity is generating 6,7 MWh of electricity per year, which is fed directly into the South China grid where it displaces fossil-fuel fired electricity.

Project achievements



Socio-economic impact:

- Workers are learning about the Kyoto Protocol and are being trained to operate the power generation facility (thus meeting a capacity improvement goal set by the project owner).
- The project activity is generating 18 permanent jobs and improving job quality. Most of these jobs involve either monitoring or the operation of advanced equipment.
- The project is showcasing the environmental potential of the brewery industry in China—showing how biogas from wastewater can be used to produce sustainable energy.



Environmental impact:

- The introduction of a biogas desulfurization and recovery system is improving local air quality by preventing the emission to the atmosphere of hydrogen sulphide (a highly toxic gas).
- Sulphur dioxide and nitrous oxide emissions produced by the biogas-fired power plant are significantly lower than the average (mainly coal fired), grid-connected power plants.



Checklist Projekt 300 068



The Gold Standard®
Premium quality carbon credits

✓ Additionality and permanence:	according to the rules of the UNFCCC and the Gold Standard
✓ 3 rd party verified::	by CEPREI
✓ Transparency:	provided by the Gold Standard Registry
✓ Annual CO ₂ reduction:	35,000 tCO ₂ e
✓ Social and environmental benefits:	as documented in our database
✓ Marketing material:	pictures available

For further information and to learn about availabilities please contact:

South Pole Carbon Asset Management Ltd., Sales Department
sales@southpolecarbon.com +41 43 501 3550

www.southpolecarbon.com

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