



Energy from waste water, China

This project captures methane from wastewater in a paper mill and uses it for clean power generation.

Location



The project is located close to Hangzhou bay at the East China Sea shore. The region is highly industrialized, which makes green projects like this an important signal for replication across the paper and other waste water generating industries.

Project



The Jingxing paper plant has two production lines with a total paper production capacity of 600,000 tons per year – generating up to 5 million m³ of wastewater which is being treated in an on-site facility. The pre-project wastewater treatment systems at the paper mill had no biogas recovery devices and methane-rich biogas was released to the atmosphere. Methane is a greenhouse gas 21 times stronger than CO₂.

Since the implementation of a modern biogas reactor, a biogas recovery facility, a biogas purification device, and a power generation system, the methane is now being captured and used for clean energy production that replaces (mostly fossil-fueled) electricity from the grid.

Other production residues such as paper fibre sludge is fully recycled, and other sludge is used as material for paper brick production by an external company.



Project achievements



Socio-economic impact:

- The project generated 10 permanent jobs in the monitoring and maintenance of the wastewater cycle.
- The project showcases an innovative way to use biogas from wastewater, with a huge replication potential.

Environmental impact:

- The project activity improves the local air quality by avoiding strong odour and noxious substances emissions as compared to the pre-project open lagoons.

Checklist Projekt 300660



✓ Additionality and permanence:	according to the rules of the UNFCCC
✓ 3 rd party verified::	by TÜV Rheinland
✓ Transparency:	provided by the UNFCCC Registry
✓ Annual CO ₂ -reduction:	60,000 tCO ₂ e
✓ Social and environmental benefits:	as documented in our database
✓ Marketing material:	high resolution pictures available