

SHELL COMMERCIAL FUELS



DECARBONISATION THROUGH ENERGY SOLUTIONS

St. Teresa's Hospital is a well-established private general hospital in Hong Kong, which aims to provide quality service to the public. It is also the Hospital's aspiration to operate sustainably and reduce its carbon footprint. Shell, as an energy partner to its business customers, provides a range of solutions in alignment with the Hospital's evolving needs.

COLLABORATION WITH SHELL

Shell's approach is based on the principle of avoid, reduce, and then compensate. That means helping customers avoid CO₂ emissions in their operations where possible, reducing the emissions that cannot be avoided, and compensating for the remaining hard-to-abate emissions. As part of its decarbonisation plan, St. Teresa's Hospital chose to reduce emissions through using Shell biodiesel to power boilers which produce steam for sterilising medical equipment and for hot water supply. The Hospital also deployed nature-based solutions (NBS) to compensate¹ its remaining CO₂ emissions.

SHELL BIODIESEL

B5 Biodiesel includes 5% of biodiesel and 95% diesel. This biodiesel is mainly produced from locally collected waste cooking oil and grease trap oil. Biodiesel is recognised by the Hong Kong Government as a form of renewable energy that can contribute to reducing greenhouse gas emissions, by helping reduce the overall CO₂ emissions on a well-to-wheel basis², compared with using conventional regular diesel.

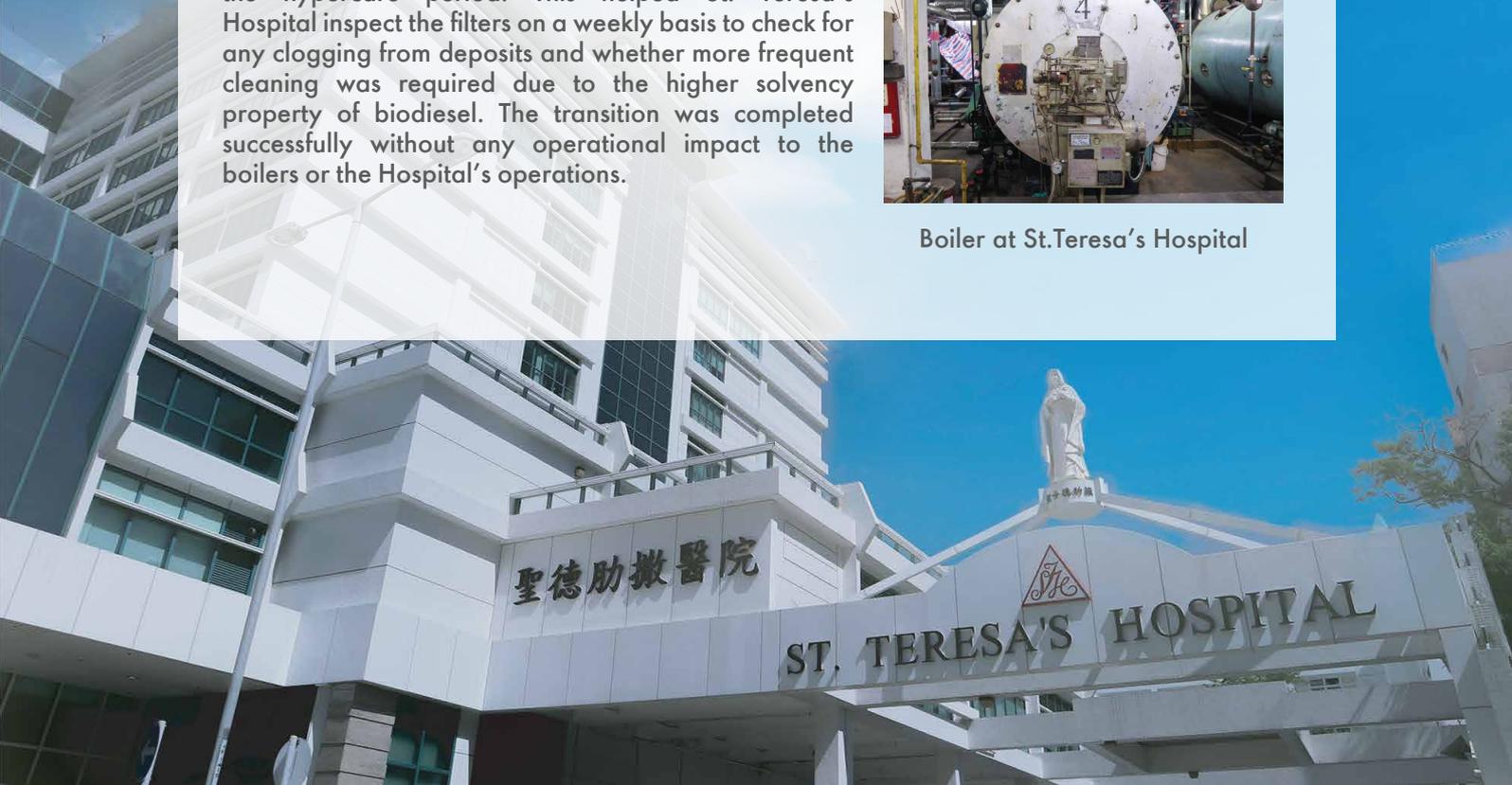
Shell's experts were also on hand to provide close monitoring protocol for switching to biodiesel during the hypercare period. This helped St. Teresa's Hospital inspect the filters on a weekly basis to check for any clogging from deposits and whether more frequent cleaning was required due to the higher solvency property of biodiesel. The transition was completed successfully without any operational impact to the boilers or the Hospital's operations.



Used cooking oil collected from canteen

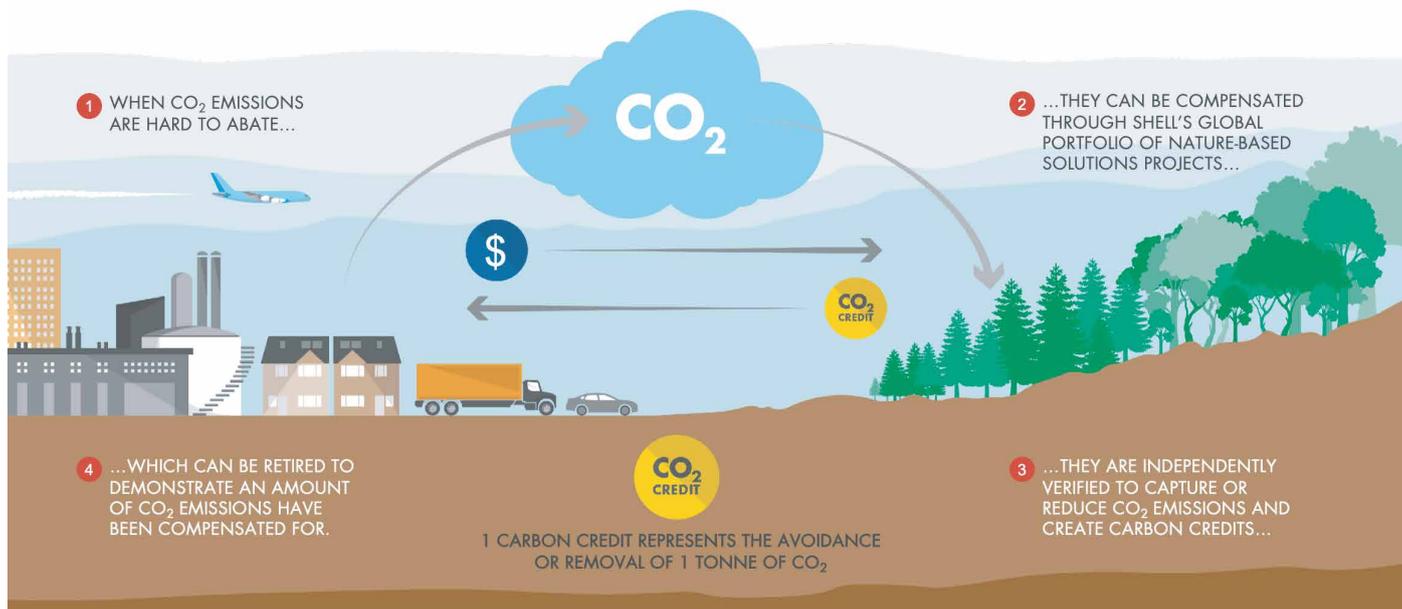


Boiler at St. Teresa's Hospital



NATURE-BASED SOLUTIONS

Besides using Shell biodiesel to reduce its CO₂ emissions, St. Teresa's Hospital also purchased nature-based carbon credits to compensate for their remaining emissions. Customers' hard-to-abate emissions can be compensated through Shell's global portfolio of carbon credits. How NBS work is illustrated in the infographic below.



NATURE-BASED PROJECTS

The credits for St. Teresa's Hospital will come from two projects - Katingan Mentaya, a wildlife and conservation project located in Central Kalimantan, Indonesia and Qianxinan Afforestation project in Guizhou Province, China. All their carbon credits are independently audited according to the Verified Carbon Standard (VCS), and Climate, Community & Biodiversity (CCB) Standards.

The projects' commitment to UN Sustainable Development Goals are crucial. Reducing carbon emissions must go hand-in-hand with strategies that build **economic** growth and address a range of **social** needs including education, health, social protection, and job opportunities, while tackling climate change and **environmental** protection.

Qianxinan Afforestation Project in Guizhou Province



- 470,000 carbon credits generated on average each year
- 32,047 hectares are covered by the project
- 24,035 community members trained and employed in the project activities with improved livelihoods.
- 2 endangered species benefiting from reduced threats as a result of project activities

Katingan Mentaya Wildlife and Conservation Project



- 7.5 million carbon credits generated on average each year
- 149,800 hectares of intact peat swamp forest protected
- 12 endangered species and 37 vulnerable species protected
- Over 500 people are directly employed by the project

“ We are glad to help tackle climate change by using high-quality biodiesel and nature-based carbon credits from Shell. By doing so, we are using carbon-neutral fuels to operate our boilers, which is a big milestone in our sustainability journey. ”

Gilbert Ho
Head of Estate Department, St. Teresa's Hospital

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¹The terms "Carbon Neutral", "Carbon Off-set" or "Carbon off-set compensation" are applied in a non-technical way to indicate that Shell has engaged in a transaction to ensure that an amount of carbon dioxide equivalent to that associated with the production, delivery and usage of the fuel has been removed from the atmosphere through a nature-based process or emissions saved through avoided deforestation.

² Well-to-wheel CO₂ emissions include the CO₂ emitted over the product lifecycle. For biofuels this will typically include production of the feedstock (planting, harvesting, effects from converting land before planting), converting it into a biofuel, distributing it to the tank of the car or truck and burning it in the engine (Directive 2009/28/EC of the European Parliament and of the Council, Annex V).