# **GreenGlobe** Portfolio

### 60% VER renewable energy, 40% resource protection



#### The Portfolio

This portfolio is of Verified Emission Reductions (VERs) from a 60/40 mix of renewable energy and resource conservation schemes. In all cases the principles are the same: projects need money to make them viable; a carbon credit is created out of the CO<sub>2</sub> reduction achieved by the project; through 'offsetting', a company pays for the carbon credits; the sale feeds back to the project and so helps make them viable. It's a virtuous circle.

The renewable energy element of this portfolio supports a range of projects which produce power from sources like wind, biomass and management of waste products like biogas. Most often, the projects are replacing energy which would have been used from fossil fuel power stations. There are some, however, which may be saving emissions in other ways, such as solar electricity lighting systems used in rural off-grid areas to replace kerosene lighting. Many of these renewable energy schemes bring real benefits to the local communities: helping for example to reduce pollution and waste associated with coal; helping to promote self sufficiency and stability because there is less dependence on imported fossil fuel. The resource conservation schemes include energy efficiency, methane recovery and low carbon fuel switches. For example, trapping methane – 21 times more powerful than  $CO_2$  as a greenhouse gas - which leaks from the seams of coal mines, and then using it to generate electricity. Another example would be using carbon finance to make it financially viable for industry to move from the lowest fuel source (often coal) to something less carbon intensive like natural gas. In each case, the essential purpose of the schemes maximize the use of existing resources and minimize  $CO_2$  emissions.

### Example 1

#### Wind power

Country: India Project partner: Enercon Limited



In India's future energy requirements are forecast to rise substantially to meet its economic and development objectives – it's predicted that electricity supply will need to expand by up to seven times today's production levels.

At present, it's primarily coal that's used for the generators – it's cheap and plentiful supply. But it's also a finite resource producing high levels of CO<sub>2</sub>. We work with Enercon Limited, where carbon finance plays a major role in making financially viable the construction and operation of new wind turbines at various sites in the states of Rajasthan, Gujarat and Karnataka.

There benefits in addition to the 'clean' power: all parties involved in the design, construction and operation of the wind farms are Indian, so the project bring new employment and helps to develop the wind power industry locally and sustainably.

## Example 2

#### Waste heat recovery

#### Country: China

Technology partner: Quzhai Cement Works Company Ltd



Often requiring some innovative thinking, our energy efficiency schemes are those which make industrial processes less resource intensive.

For example, a factory in the Northern Chinese province of Hebei, wastes up to 35% of the heat it produces cement making; its just vented to the atmosphere. New equipment – made possible by carbon finance – will use the heat to create steam, which in turn drives a turbine which produces electricity for use on-site, replacing the normal pull made fossil fuel power stations, which mainly run on coal in China. A win-win.

And there are added benefits: a reduction in local air pollution; it becomes a 'best practice' example to encourage other businesses in China adopt a lower carbon processes.

#### Standards

The CarbonNeutral Company has a world leading quality assurance programme covering all elements of carbon measurement and reduction. All emissions reductions sold for carbon offsetting by The CarbonNeutral Company have been verified to quality standards and, as a minimum, have met the requirements of The CarbonNeutral Protocol. Every tonne of carbon sold by The CarbonNeutral Company is guaranteed.

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