

## Increasing the Energy Efficiency of the Largest Fruit Exporter in South Africa

In South Africa, demand for energy has outpaced national supply as there has been little investment in energy infrastructure. Country-wide power outages and an increasingly insufficient supply have led to escalating energy prices.

IFC works with the Karsten Group to increase energy efficiency, reduce operating costs, and boost productivity.

IFC has partnered with the Karsten Group since 2006, providing both advisory and investment services.

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*“We like working with IFC. If all farming businesses in the region did what we’ve done, we would achieve significant success in improving people’s lives.”*

—Piet du Plessis, Karsten Group, Chief Executive Officer

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### RESULTS AND IMPACT

- \$1.2 million in total financing facilitated for Karsten Group.
- \$1 million invested by IFC in Karsten Group.
- 1,500 mwh of energy savings annually, or 5 percent of Karsten's annual consumption.
- \$300,000 saved annually due to a reduction in energy costs and an increase in productivity.
- The annual cost savings Karsten Group achieved paid back their investment in energy efficiency after four years.

\*This series provides examples of IFC's impact, expertise and lessons learned working with clients and partners.

## The Opportunity

Ranked the 18th largest issuer of greenhouse gas (GHG) emissions worldwide, South Africa has an abundance of energy resources in addition to large deposits of coal, which generate 80 percent of the country's consumed primary energy. As a result, until 2009 the country's energy prices were among the cheapest on the continent.

Beginning in 2002, South Africa's GDP steadily increased more than the rest of Sub-Saharan Africa. However, investment in energy infrastructure and supply systems did not match the years of steady economic growth. By 2007, electricity demand could not be met at all times and intermittent power outages set in.

The government introduced a new tariff structure favoring energy efficiency with lower tariffs and capacity restrictions.

Before the power shortage became evident, private sector firms had little incentive to prioritize energy efficiency processes within their operations. However, following the 2007 blackouts, businesses realized the need to seek long-term resource efficiency solutions.

As the energy landscape changed, companies began seeking advice from outside energy specialists and pursuing funding to maximize energy efficiency within their operations.

Karsten Farms' management understood the value of making its operations more energy efficient. It also knew that it was better to do so sooner rather than later and engaged a partner with whom it had already worked.

## IFC's Approach

An IFC investment client since 2006, the Karsten Group was eligible for IFC's Cleaner Production Lending Facility (CPLF). The Facility is available to IFC portfolio clients in good standing to help finance projects that support more efficient use of energy, water and materials, resulting in the use of natural resources and in the reduction of GHG emissions. The Facility also allows clients to pilot investments in energy efficiency and renewable energy that they may roll out more widely in their operations.

IFC's Sustainable Business Advisory and Karsten's energy team jointly identified opportunities in resource efficiency. Drawing upon the Facility, Karsten received \$1 million for a long-term loan and advisory services to install efficient lighting and refrigeration systems on its farms. The loan also helped Karsten install solar water heaters in approximately 300 farming worker homes on ten farms, improving the living standards of its employees.

As a result, the project is saving Karsten \$300,000 annually due to a reduction in energy costs and an increase in productivity, while lowering its annual energy consumption by 1,500 mwh, or 5 percent of current consumption.

IFC's advice was not only practical, but the hands-on nature of the partnership provided solutions that could be implemented immediately, leading to cost savings as early as one year after implementation.

Immediate improvements and cost savings further incentivize companies to consider energy efficient solutions for a sustainable future.

*IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector.*

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**IFC CLIENTS** Karsten Group