

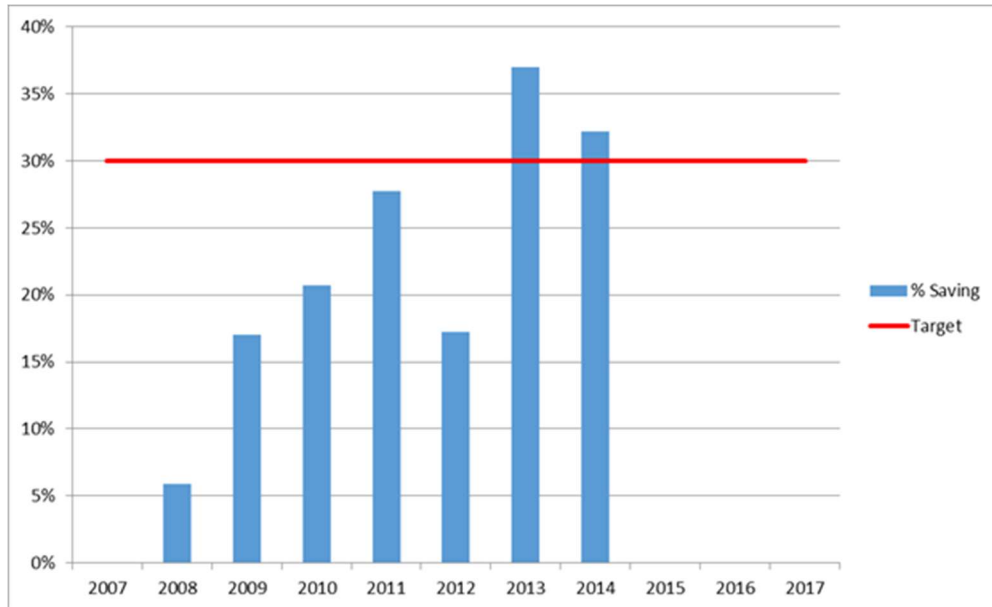
Case study: The implementation of an Energy Management System at Sundays River Citrus Company.

The Sundays River Citrus Company (Pty) Ltd (SRCC) is the largest citrus packing and marketing operation in South Africa. It is situated in the Sundays River Valley and operates from three locations: Hermitage, Kirkwood and Summerville. All locations have packhouses, while Kirkwood and Summerville have degreening facilities as well. SRCC has been a driver of energy efficiency initiatives since 2007 and the implementation of an energy management and monitoring system would complement these sustainability initiatives into the future.

This Energy Management System (EnMS) was implemented with assistance from Koos Bower Consulting according to the ISO 50001 guidelines and was funded by the United Nations Industrial Development Organisation (UNIDO) as part of the Industrial Energy Efficiency Improvement Project (IEE) in South Africa. The EnMS implementation at SRCC took place from November 2013 – November 2014.

The existing energy policy contained an objective of an energy improvement of 30% over a 10 year period with 2007 as baseline. Working through the structured approach of ISO 50001, the energy team defined the scope and boundaries, significant energy users, energy drivers, energy performance indicators and eventually an opportunities list to achieve this objective. Critical operational and maintenance criteria were identified and appropriate training was provided to all the people according to their ability to influence the energy results. The most important part of the EnMS project was the development of an energy information system. The EnMS information system provided SRCC with a trend analysis of energy usage and other valuable information:

- Ability to see actual energy performance since 2007 normalized on production volume;
- Ability to see a summary of all the energy sources in the business;
- Already achieved good energy savings which were not visible to SRCC before the EnMS implementation.
- Identified shortcomings and needed changes in their operations and provided the motivation to implement further energy initiatives going forward.



The structured methodology of the EnMS implementation allows visibility on the SRCC energy performance in two ways: It shows the good improvement of 32% energy savings as a result of their efforts since 2007, and it shows the impact of financial losses during 2012 and 2014 due to poor energy management. Without the EnMS this type of information would not have been available to the SRCC management.

The EnMS implementation was a resounding success and is used continuously to monitor energy efficiency and performance initiatives. This information system also provides management with the visibility of energy usage and assists the formulation of actions to improve energy performance and efficiency to ensure the companies sustainability going forward.

Acknowledgements: Special thank you to Koos Bouwer from Koos Bouwer Consulting and Greg Jones from SRCC for the valuable information given for this case study.