

Polyoak Packaging

Durban



7%

Overall consumption saved



679 017 kWh

Energy saved



ZAR 736 733

Money saved



ZAR 1 563 780

Investment made

Sector: Plastics

Intervention: Energy system optimisation, compressed air, pumps, HVAC pumps, 2014–2017

THE COMPANY AND THEIR PRODUCT

Polyoak Packaging was founded in 1976. They specialise in the manufacture of rigid plastic packaging for the dairy, beverage, food, lubricant and industrial sectors, as well as display solutions for the clothing retail industry. The organisation employs over 2000 people in 32 manufacturing plants across geographical locations in South Africa. Polyoak has eight specialist manufacturing divisions which utilise blow, injection, compression and thermoform technologies.

With approximately 8 million kWh of electricity consumed annually at the facility, the energy assessment conducted in 2014 revealed some of the typical significant energy users (SEUs) within the plant to be compressors, lighting, extruders and other machinery, as well as heating, ventilation and cooling (HVAC) systems.

THE ENERGY EFFICIENCY INTERVENTION

The average weighted cost used to calculate the savings from 2017 to 2018 was R1.085/kWh.

As the plant expanded, the demand for air increased and there was a need to increase the capacity of the swing compressor from 110 kW to one that was rated at 160 kW.

Polyoak decided to install an air compressor rated at 160kW equipped with a VSD as a means of reducing energy consumption on their air compressors. By implementing this decision, they hoped to match their plant air profile accurately while still being energy efficient.

CAPACITY BUILDING

Polyoak Packaging has participated in the Industrial Energy Efficiency (IEE) Project across several of their plants. The Pinetown site's personnel have attended several introductory energy systems workshops such as compressed air, electrical motors, energy management systems (EnMS) etc. and are keen on attending the expert level courses hosted by the National Cleaner Production Centre South Africa (NCPC-SA).

