



CaseStudy

Challenge

Excellent Meat are a wholesale meat supply and packaging company for major food retailers, independent butcheries, food franchise outlets, and catering companies across Africa and the Middle East. Their key clients include Woolworths and Finlar foods (supplying McDonalds, KFC, Kauai, Pizza Hut and Dominos). When a severe multi-year drought, which began in 2015, led to increasingly costly water restrictions and tariffs, something had to be done to ensure that their clients could continue to rely on them.

Solution

With the help of the [National Cleaner Production Centre \(NCPC\)](#) and [Energy Assist](#), Excellent Meat employed internal water saving awareness campaigns from 2017 to reduce water consumption. Additionally, a water monitoring system and five smart water flow meters were installed to track their water consumption and to detect leaks.

Smart water flow meters allow the user to access near real-time data on their water consumption via a computer or their site management software.



Reducing water consumption in the wholesale food industry through water monitoring systems and awareness campaigns

Excellent Meat

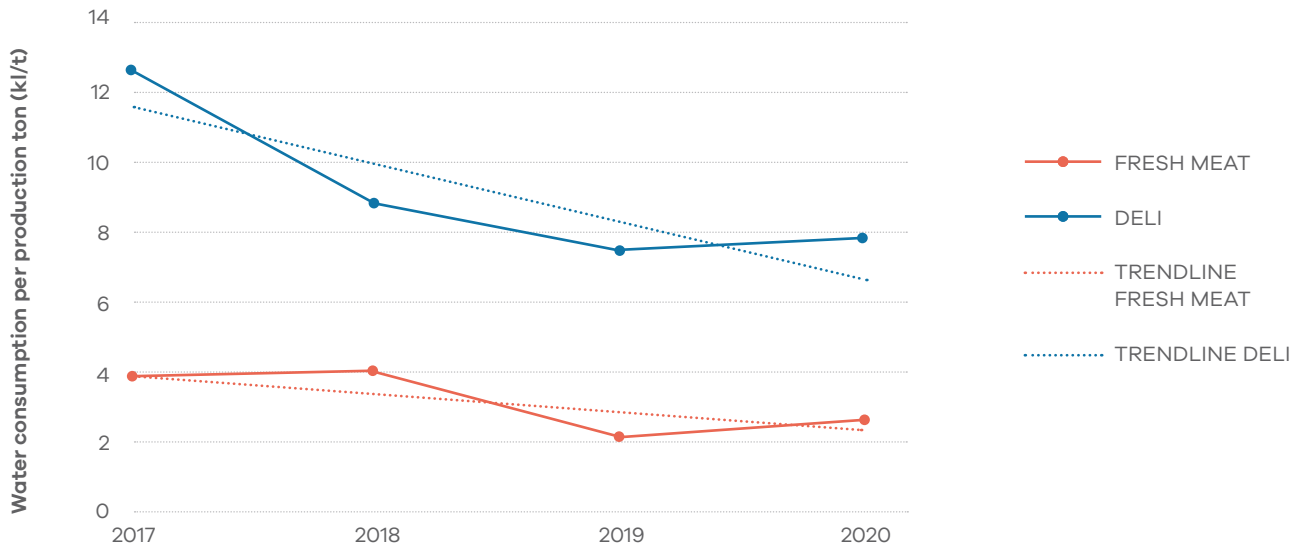
Elsies River, Western Cape

Excellent Meat achieved a 30% reduction in water consumption from 2017 to 2020 through the installation of a water monitoring system and smart water flow meters, saving R 1 139 355 in the process.

Business benefits

Overall, a 30% reduction in water consumption was achieved from 2017 to 2020, while still meeting the stringent water quality requirements set by both government and clients for food processing facilities.

A detected leak was fixed in 2018 in the Fresh Meat section, which was the most significant saving in water consumption, lowering the water consumption rate by 48.6% from 4.0 kl/ton processed in 2018 to 2.1 kl/ton in 2019. The Deli section reduced water consumption from 13 kl/ton in 2017 to 8 kl/ton in 2020. The Fresh Meat section reduced similarly from 3.8 kl/ton to 2.6 kl/ton over the same 3-year period. Total savings are estimated at R 1 500 312 over three years, at an investment cost of only R 360 958.



Business benefits summary	Total
Total water consumption saved (Deli and Fresh Meat sites) (kl) ¹	29 931
Water costs saved (at R 27.04/kl)	R 809 346
Total wastewater discharge saved (at 95% of water consumption) (kl)	28 435
Wastewater costs saved (at R 24.30/kl)	R 690 967
Total costs saved (2017 to 2020)¹	R 1 500 312
Total investment²	R 360 958
Overall benefit (costs less investment)	R 1 139 355

Lessons learned and future plans

The proven success and savings is driving Excellent Meat to continue to implement water saving initiatives. Their future plans include additional water meters for other big user subsidiaries in the group, energy management and solar PV installations, and waste monitoring and management.

¹ All savings (water and costs) are based on a comparison to the 2017 base year's water consumption. Water savings were based on annual water consumption per production ton rates and 2017 production tonnes to keep production rates consistent. Cost savings were calculated using December 2020 water and wastewater tariffs.

² Investment cost includes physical monitoring devices (smart flow meters), leak fixing, monitoring software system, consulting services for data and bill analysis and programme management.

Taking water efficiency steps to transform the red meat industry towards resource resilience is supported by the following International Finance Corporation (IFC) publications:

- [Benchmarking Study: Resource Efficiency in Red Meat Abattoirs in South Africa](#) provides an in-depth resource efficiency analysis of the meat agri-processing sub-sectors, and
- [Practical Guide for Improving Resource Efficiency in Red Meat Abattoirs in South Africa](#) identifies and summarizes common resource efficiency opportunities and guidance on implementation.



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