



# Lowering operational costs through optimised energy consumption

By N Maleka, SEW-EURODRIVE

*Energy-efficient drive systems are becoming more important than ever in South Africa – given the volatile power supply from the national grid as a result of continued load shedding, as well as surging electricity costs and increasingly-stringent environmental legislation.*

The need to move to energy-efficient solutions is two-fold, namely: to minimise operating costs while maintaining existing infrastructure and capacity; and to lower plant power requirements and improve stability.

Energy costs can constitute up to 90 % of the lifecycle costs of systems that have not been optimised. Modular concepts are highly effective in proactively addressing this issue, as just one single efficiency-optimised drive component can positively impact a system's overall energy balance. A modular energy-saving system only includes components with optimised energy-efficiency.

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Combining these optimised components from the modular energy-saving system can result in 70 % energy savings. The most energy-efficient solution is, however, not only dependent on the components used, but also on the supporting analysis and consulting services. As a result, it is important that energy-efficiency specialists perform regular and thorough tests on an application. Energy consulting is the primary service in the energy-saving concept. Customer-specific

consulting allows solutions providers to identify the optimal energy-saving solution for individual systems, whether they exist or are still being developed. Focus should be placed on the complete system. With the existing process sequences in mind, the goal is to reduce power loss, optimise power requirements and recycle released energy. Effective energy consulting services allow operations to witness real savings in their actual plant environment, rather than just the theoretical savings. All energy-saving factors should therefore be identified and implemented consistently. During highly-volatile power supply periods that are currently being experienced in South Africa, the benefit to the end-user is measurable success, with regards to a reduction in energy consumption and costs, while simultaneously lowering CO<sub>2</sub> emissions too.

SEW-EURODRIVE's newly-launched effiDRIVE energy-saving solutions are based on the company's proven modular concept. The solution is ideally-suited for numerous industries, including food and beverage, airport logistics, building ventilation systems, and intralogistics, such as storage and retrieval systems. The solution can be retrofitted onto existing machines and systems too.

## Conclusion

The introduction of energy consulting to the SEW-EURODRIVE South Africa business unit is a natural extension of the mechatronic product portfolio and is aimed at assisting current and future clients with energy-efficient solutions. The company draws upon an extensive wealth of experience with tried-and-tested package solutions. Our energy specialists are familiar with the applications of numerous industries, thereby ensuring the success of all energy-efficient drive components.



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