

# Use PSEE to measure, monitor, manage energy in retail

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Energy is a key cost driver in the retail sector, therefore measurement, monitoring and management of energy is crucial in laying the foundation to energy efficient behaviour to reduce operational costs. The newly formed Private Sector Energy Efficiency (PSEE) programme offers retailers access to international information.



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## PSEE programme implemented

In June 2013, the NBI was awarded £8.6-million (more than R120-million) by the UK Government through its Department for International Development (DFID) to implement the PSEE as a countrywide programme of support for energy efficiency improvement in the private sector.

The programme is supported by the South African Department of Energy and technical support is provided by the Carbon Trust, leveraging its experience of similar programmes in the UK.

Becoming more energy efficient is one of the simplest ways to cut costs and increase profits. In retail businesses, reducing energy consumption can directly increase margins without the need to increase sales. A 20% cut in energy costs through energy efficiency measures represents the same bottom line benefit as a 5% increase in sales.

According to the Bureau for Economic Research (BER) retail survey, retail sales growth remained fairly weak during the second quarter of 2014, with an average annual rate of only 2.8% year-on-year growth between January 2013 and March 2014, so a 5% growth in the bottom line through the adoption of simple energy efficiency measures would be a welcome relief.

Apart from economic benefits, achieving optimal levels of energy efficiency in a retail environment has other benefits that extend to social and environmental advantages of reducing energy consumption, reducing reliance on fossil fuel supply and minimising the effect of climate change.

Increasingly, consumers are also becoming highly sensitised to the issues of climate change and energy security and they expect their suppliers to behave in a responsible manner. Consumers are actively choosing to spend their money with retailers who are taking positive steps towards environmental protection.

In the same manner, many retailers are actively seeking out and favouring business partners and suppliers who share their values and ethical commitments. For any supplier to the retail industry, implementing energy efficiency as a fundamental business strategy is increasingly going to mean the difference of whether one's business is on the preferred procurement partner list or not.

## **Begin with low, no-cost measures for quickest payback**

Focusing on low and no-cost measures and actions which will have the quickest payback is a good starting point. For example, in one PSEE client case study, a leading retail store launched an energy awareness programme, focused on changing employee behaviour, and achieved a 20% reduction in energy costs within the first year. Since then, energy consumption has been included as part of the store management performance indicators as well as a regular item on the staff training agenda.

A key point made under the PSEE programme is that many low hanging fruits which will have no or low cost implications can deliver immediate benefits, but are not necessarily being leveraged - for example staff training and behavioural change in terms of energy usage are not addressed strongly or often enough.

## **Leverage quick wins**

In the retail environment, the best energy saving opportunities exists in lighting, heating, ventilation, air conditioning and refrigeration. Proportions of energy use will vary according to the type and size of the store, for example, food retailers tend to have higher refrigeration costs, while a clothing retailer may have greater air-conditioning and heating costs.

Regardless of energy spend make-up, the key opportunities to save energy and reduce costs lie in switching off all energy consuming equipment when not in use, performing regular and scheduled maintenance to ensure that all equipment works at optimum levels and also to implement energy saving measures as part of maintenance operations, ensuring that any planned store refurbishment takes into account relevant energy saving measures at the same time, and finally, changing human behaviour for the better through training and education.

### **Low-cost, quick wins include:**

- **'Switch off' policy, involve staff and increase awareness** - Staff at all levels should be involved in making savings. This can be achieved by conducting regular meetings, placing stickers above light switches and posters around in-store service areas (available from the PSEE website). Failing lamps or equipment should be reported by staff and replaced or repaired. This will help maintain optimum equipment efficiency, and in turn, provide a safer working environment.
- **Label light switches** - Light switches should be clearly labelled to help employees to select only those lights they need for the work being carried out (for example when cleaning or restocking the store out of hours). Lights in unoccupied areas should be switched off but remember to consider health and safety implications, particularly in corridors and staircases. Installing occupancy and daylight sensors can achieve savings of up to 50% on lighting costs in some operations.
- **Maintenance** - is essential for a pleasant shopping and work environment. Keep windows, skylights and light fittings clean, replace old, dim lamps with new low energy LED technology, keep controls and timers in good working order,

and repair any faulty equipment immediately. Maintenance is an essential part of energy efficiency - for example, light levels can fall by at least 30% in 2-3 years without regular maintenance, and a fridge compressor that never stops running due to a faulty thermostat uses huge amounts of electricity - all unnecessary and avoidable costs.

- **Heating and cooling** - although heating, ventilation and air conditioning (HVAC) can all be separate systems, it is worth considering them together because they interact with each other when providing a conditioned environment for the building. By looking at how each element of an HVAC system complements the other, it should be possible to fine-tune the system to save energy and money.

## Support, guidance from PSEE

In most instances, assessing the potential for energy savings in-store and prioritising key areas for improvement can be a challenging task if one does not know where to start from. The skills of experienced energy efficiency professionals to work with in-house energy management teams will provide enormous value in this process, which is where the PSEE programme comes in.

The PSEE programme provides subsidised services to businesses across the retail environment - from small right through to large entities - to improve energy efficiency, save costs and enhance long-term business competitiveness and sustainability. These services are provided by experienced third-party consultancies with competencies in energy strategy, green buildings, HVAC, pumps, motors, lighting, compressed air and industrial processes, contracted by the PSEE and overseen by a team of professional programme managers and account managers.

The organisation's experience has shown that even where clients have existing internal resources dedicated to energy management, further saving opportunities have been identified through their participation in the PSEE programme, simply by bringing all the skills together in one focused effort

To be fully effective, energy management needs to be an integral part of a retail organisation's wider risk management and sustainability strategies. The reality is that management of energy is often neglected, even though there is considerable potential to reduce costs.

Rising energy prices, climate change legislation and the need to be environmentally responsible all require an effective energy management strategy that involves the entire workforce to deliver a long term and sustainable solution to the most pressing energy challenges facing business, our economy and environment.

By coming on board with the PSEE, participating companies will have access to subsidised, professional consultants to assist with the establishment of energy consumption baselines, implementation plans, data gathering and benchmarking against global best practices, that will combine to create a sustainable business environment that places energy efficiency at its core, and most crucially, much of which can be achieved without any capital investment upfront.

To download the PSEE's comprehensive guides to Retail Energy Management, awareness posters and other resources, go to [www.psee.org.za/Resources](http://www.psee.org.za/Resources). Companies interested in participating in the PSEE programme, receiving more information on energy efficiency or subscribing to the PSEE newsletter are invited to register their interest on the PSEE website [www.psee.org.za](http://www.psee.org.za), call +27 (0)80 111 3943 or send an enquiry to [info@psee.org.za](mailto:info@psee.org.za).

## ABOUT THE AUTHOR

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