By Ann-Baker Keulemans

Power to the people

The energy question:

Why efficiency and sustainability are essential for future-proofing your business

A secure and reliable power supply is essential for the profitable operation of today's retail outlets. Supermarkets are one of the country's greatest commercial energy consumers, and with costs rising rapidly, energy efficiency and sustainability are a key focus for all retail groups and independent stores. Cable theft, aging and failing infrastructure and extended delays when it comes to bringing new power supply units online make the situation untenable for most power-dependant businesses. Understanding where your electricity goes, how you use it, and how to save it, is therefore critical.

The current landscape

The energy state of affairs in South Africa is dire, and it seems things are unlikely to improve any time soon. Like most businesses in South Africa, the supermarket and FMCG retail sectors rely heavily on electricity, and by extension, on national energy supplier Eskom. This is a somewhat precarious position to be in, however, and those who can afford to look at alternative energy sources are doing so. Eskom CEO Andre de Ruyter recently announced that South Africans can expect to endure loadshedding for another five years.

This assumes that unlike undertakings of the past, retrofitting of existing power generation units, the building of new units, and preventative maintenance actually take place, and within the expected time frame. Eskom has also proposed several new tariffs, tariff structures, and buy-back rates that will affect those who use solar power, and those who use most of their power during peak periods. Taking all of this into account, now is certainly the time to relook your energy efficiency.

Maintaining standards

Electricity is essential to keep your business running but keeping the lights on (and the fridges cold) affects more than just your bottom line. Customers have run out of patience with Eskom and don't always accept loadshedding as an acceptable excuse for a sub-par shopping experience.

Particularly in mid- to upper LSM areas (and certainly applicable to shoppers across the entire LSM spectrum), your customers will expect their shopping experience to remain unhindered by a loss of power, which means all your lights, refrigerators, HVAC, bakery equipment, and till points need to stay switched on.

Glacier
Glacier Door Systems

CASE CLOSED

Energy Saving Solutions

Glacier Door Systems has introduced the Air Shield ('Close the Case') Glass Door retrofit solution for refrigerated supermarket display cases, as well as the Eco Leaf Replacement Glass Door for existing glass door freezer rooms and glass door freezer display cabinets. Both solutions guarantee energy-savings in an ever-increasing energy cost environment. Part of the well-established Universal Industries Group, Glacier has 26 years' experience and are acknowledged industry leaders in refrigeration door technology. Innovative and forward-thinking, the company is built on cutting-edge technology, technical expertise and a customer-centric approach.

The value benefit

- High-quality locally manufactured solutions featuring the latest energy-saving technology.
- Demonstrated good pay back periods can be expected.
- Customised solutions to suit your store.
- ISO 9001 accredited factory.
- Safety toughened glass in accordance with SABS/SANS certification.
- Flexible installation timing to offset any customer disruption.
- Financing options available.

You can trust a Glacier door

Air Shield Glass Doors

Features and Benefits

- Double glazed glass doors with Argon gas fill for superior insulation.
- Glass durability and clarity with torsion bar for positive closing.
- Glass door heating option for high humidity environments.
- Glass doors available with hold open brackets and LED lighting options.
- Flex modelling means glass panels are customised to fit existing cabinets and are tailored to suit each store's specific environment.

A quick and easy energy-saving retrofit solution, Air Shield Glass Doors can be fitted to any existing open refrigeration case, saving up to 40% on energy consumption.

Note: The value proposal is based on R1.31 per kWh and 40% energy saving. These are averages based on our experience and can be validated per store.

Glacier
Glacier Door Systems

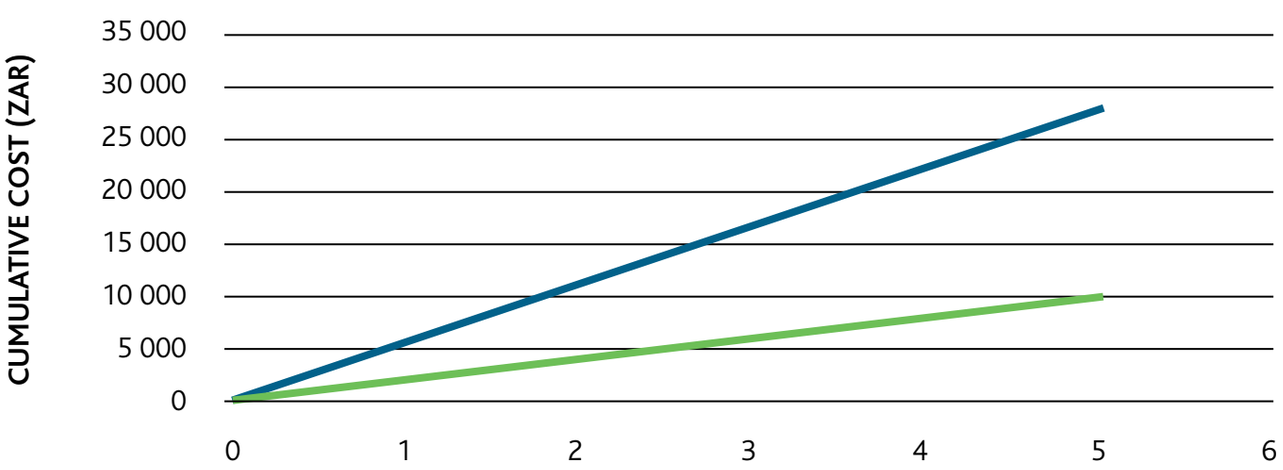
CASE CLOSED

Energy Saving Solutions

Eco Leaf Freezer Doors

Designed as a 'swop-out', energy-saving replacement glass door utilising 220V technology that eliminates the need for voltage-reducing capacitors. This results in an amperage reduction from 1.29A on the standard door to 0.46A (64%) with the replacement Eco Leaf Door.

The Eco Leaf door is 64% more efficient than the standard door. The value proposal is based on R1.31 per kWh and 64% energy saving. These are averages based on our experience and can be validated per store.



	AMPS	VOLTS	WATTS
Glacier Eco Leaf Door	0,46	230	105.8
Glacier Standard Door	1,29	230	296.7

Glacier
Glacier Door Systems

For product enquiries **011 613 8120**
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Focus areas

Becoming more energy efficient and sustainable is both a cost-saving exercise and good for the environment, so looking into alternative energy sources is the smart thing to do. But where do you start?

The biggest energy consumers within the food retail space are refrigeration, lighting, HVAC, and bakeries. This is also where the most energy loss and wastage occur.

Refrigeration and HVAC can account for anywhere between 30% and 60% of a store's total energy consumption. This is a massive bill, and not something that can be skimped on, as food safety and hygiene are on the table. Lighting is the next largest consumer, with 15% to 25% of total electricity usage. Bakeries might not be the biggest energy consumption culprit, but they are a constant drain as they rely on a stable supply to retain optimal functionality.

As the price of electricity rises, reducing costs and increasing efficiency is a key consideration for many stores and retail groups. A white paper released by Schneider Electric in 2013 identified that due to refrigeration and HVAC needs, food retailers can consume as much as three times as much energy per square metre as non-food retailers, depending on factors such as the type and size of the store, business and merchandising practices, and refrigeration and environmental control systems used. There are several low-cost steps you can take to increase your energy efficiency.

Photo courtesy of Danfoss

In its quest to achieve sustainable and reduced energy consumption, German retailer Aktiv & Irma installed a system that enables the store to recover the heat generated by their refrigeration units and use this to heat their stores.

- Take meter readings regularly and always check your electricity bill. Unexpected spikes or increases may indicate an electrical issue.
- Ensure all thermostats are regularly checked and calibrated as even small differences mount up over time.
- Compile a comprehensive operational and preventative maintenance plan to identify and rectify problems immediately.
- Take advantage of any sources of natural light to cut down on power-generated lighting.
- Adjust store temperatures seasonally where possible.
- Install energy monitoring software or smart meters.

Becoming more energy efficient

Monitoring and managing energy consumption are essential for energy efficiency. You need to know how much electricity you are using, when you are using it, and where you are using it.

But that's only half the battle. You also need to manage your energy usage, which means scheduling everything from lighting and HVAC to maintenance and monitoring on a rotational audit schedule.

In a Cold Link Online article by Ilana Koegelenberg titled An insider's look at supermarket refrigeration in SA, Dawie Kriel, director at Energy Partners, lists the following popular energy saving products and technologies:

- Modulating unloading heads on compressors to cater for variable loads.

- Variable speed drives for capacity control of fans and compressors.
- EC (Electronically Commutated Fans). This combines AC and DC voltages to get the best of both worlds.
- Electronic expansion valves that enable considerable energy saving, as they allow a lower condensation pressure in systems equipped with air cooled condensers, which is adjusted to variations in outside air temperature.
- Brushless DC compressors.
- LED lights in cabinets and rooms.
- Perspex and glass doors on chiller cabinets, which create large savings.
- Raised suction temperatures and reduced condensing temperatures, sometimes using 'floating' algorithms in controls.
- Detailed energy and temperature monitoring with trend logging and active management.

Photo: www.kampmanngroup.com

German supermarket Aktiv & Irma in Oldenburg engaged Danfoss and SMA Solar Technology to help them become a 'prosumer' – a consumer that produces and stores energy. The two companies worked together to provide the key components that would enable the store to run with an energy consumption level roughly 20% below the average for European supermarkets.

Saving on refrigeration energy consumption

The technology behind commercial refrigeration has improved dramatically over the years, with new units offering exceptional benefits, from energy efficiency and savings, to increased cooling and temperature moderation capabilities. For those unable to commit to the capital outlay for new units, retrofitting with seals, air foils, and doors is also an option. Something as simple as adding doors to your freezers, or even air foils that redirect most of the cold air back into the unit itself, can result in not insignificant energy and cost savings.

> "Understanding where your electricity goes, how you use it, and how to save it, is critical."

According to industry experts Colcab, new generation upright refrigeration cabinets are about 30% more energy efficient than the older generation units. In fact, based on a COP of 2.5 and R1.50/kWh, a 12' new generation narrow upright could result in R6 300 less electricity cost per year, compared to a standard 12' lofty upright. Factory installed or retrofitted glass or acrylic doors on refrigeration units can result in up to 60% savings for upright cabinets and 40% savings for island freezers. If you were to invest in Colcab's Eco Leaf upright freezer doors, which are 64% more efficient than standard doors, you might see a saving of R6 700 for the year for a four-door freezer.

Investing in a brand-new system is just not financially feasible for many smaller stores. Daniel

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> The biggest mistake retailers make is assuming that energy efficient solutions are expensive.

De Beer, regional manager for Sub-Saharan Africa, Emerson Commercial & Residential Solutions, says, "The biggest mistake retailers make is assuming that energy efficient solutions are expensive. This is not true – most of the time you can achieve substantial savings by making sure your refrigeration system is properly commissioned. The cheapest energy saving solution is recommissioning, followed by everyday solutions such as floating head pressure control, floating suction pressure control, suction pressure regulation, and electronics (valves and smart controls). We often find that retailers are overlooking the simplest thing available; COP – how much energy do you need to achieve a kW of cooling." (Coefficient of Performance (COP) indicates the efficiency of heating and cooling a refrigeration system. The COP is defined by the ratio of heat dissipation and electrical power intake. The larger the COP, the less energy is required per kW of refrigeration). "A very small difference in COP has a large impact on your energy consumption, and this is very rarely looked at during the CAPEX process," Says De Beer.

Environmental considerations

For small to medium stores that decide investing in natural gas is not currently feasible, De Beer says, "What needs to be looked at is the Global Warming Potential (GWP) and Ozone Depletion Potential (ODP) – there are multiple refrigerant options available today which offers 0 ODP and a GWP of less than 1500.

These are good alternatives, and even though it's not natural, it is a sustainable alternative, which has the potential to offer you similar energy savings at much lower capital expenditure costs. If you are not using natural refrigerants, you must invest in a good installer (good pipefitting and installations reduce leaks) and a reliable leak detection system, something which can offer you accuracy down to 3-parts per million (PPM). This way, you can mitigate any potential leaks and damage to the environment.

Look for a service provider that includes a site analyses and works in partnership with your store

HOW TO DO AN EASY STORE ENERGY AUDIT

- Scrutinise your electricity bills. To establish an historical usage pattern, you should look at about three years' worth of statements.
- Do a walk-through survey. This is to visually identify problem areas, where lights or machinery may be left running, for example, or where preventative and ongoing maintenance would be of benefit, such as refrigeration units, tubing and piping, compressors, meters, pumps, and valves. You can also determine the operating conditions of systems such as HVAC, lighting and refrigeration.
- Identify your main areas of energy consumption and where energy savings can be made, such as old lighting fixtures, not using heat reclamation pumps to obtain hot water from your refrigeration units, adding doors to refrigeration units. Identify whether you have space for solar fittings or generators.
- Prepare a comprehensive list of potential energy saving actions.
- Estimate the energy use density and hours of operation for separate areas.
- Check equipment for efficiency and calibration.
- Prepare an estimate of cost savings that could be achieved and an estimate of the outlay to implement the energy saving initiatives. This will tell you if the return on investment is worth it for your business.

Ways to save

With energy costs rising and food retailers looking to improve the shopping environment for customers, Insulated Structures has developed an effective solution to reduce the cost of in-store refrigeration while enhancing the customer experience.

Insulated Structures doors are easy to retrofit on in-store cabinets to reduce the energy required to keep chilled foods at the correct temperature.

Meanwhile, customers are able to clearly see and access the products on offer. Reduced energy requirements means smaller refrigeration plant selection for new stores. These savings will offset the cost of the doors. Up to 40% reduction in refrigeration requirement has been achieved.

Benefits

- Reduced energy consumption
- Extended product shelf life
- Double glazed argon filled void for Better insulation
- Optimal product temperature
- Glass doors have optional mullion lights
- Handles included
- Up to 40% energy saving
- Solution for new cabinets or retro fitted on existing cabinets
- Doors are spring loaded
- Less cold air spillage - warmer aisles
- Proudly South African

Aspects

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to help reduce energy consumptions."

According to Freor, a Baltics-based commercial refrigeration manufacturing company, "Fluorinated greenhouse gases (F-gases) are widely used as refrigerants in commercial refrigeration. F-gases are powerful greenhouse gases that trap heat into the atmosphere and contribute to global warming. Hydrofluorocarbons (HFCs) have become the fastest-growing source of greenhouse gas emissions globally."

Investing in natural refrigerants is good for the environment, and results in energy savings too.

A good alternative to F-gases is environmentally friendly propane (R290) gas. R290 is a natural refrigerant that does not affect the ozone layer nor cause any environmental damage when emitted. It is non-toxic, Ozone Depletion Potential (ODP) 0, Global Warming Potential (GWP) 3, and is up to 30% more energy efficient than HFC systems.

CO_2 (R744) refrigerant is a sustainable, non-toxic, non-flammable refrigerant. It has no effect on global warming in case of leakage and it has ODP 0 and GWP 1.

Photo: www.danfoss.com

Danfoss and Freor also installed a digital energy management solution at German supermarket Aktiv & Irma using Danfoss' AK-SM 800 System Manager and SMA's ennexOS unit. Combined, the two components provide the store with an intelligent, two-way connection to the electricity grid and allows the supermarket to function somewhat like a giant battery that can store electricity when there is too much of it in the grid.

Remote and real time monitoring

Monitoring the temperature of your refrigeration, freezer, and cold room units is an important part of maintaining energy efficiency. This can be done using the Internet of Things (IoT) to connect smart devices to your refrigeration systems, which allows real time and remote access to your data. A solution such as the Ikhaya Automation Systems Wi-Fi Logger offers SMS or email notification of humidity and temperature violations, automated reporting, and remote real time access to your data via the Cloud.

Saving energy on in-store lighting

When it comes to in-store lighting, you need an energy efficient alternative that still provides quality lighting. LED lights use significantly less energy than regular lights – they are 80% to 90% more efficient than incandescent lights and about 20% more efficient than fluorescent lights – yet provide the same light output. LEDs also provide impressively stable light levels with an increased lifespan and are available in a variety of both warm and cool colours. LEDs have cooler operating temperatures and offer flexibility when it comes to in-store lighting, which is an added bonus when used to enhance food displays and direct customer experiences.

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Supply air system

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* Results vary depending on application, load cycle, the control and installed equipment etc.with many of our RETROfit customers expe-riencing >60% energy savings

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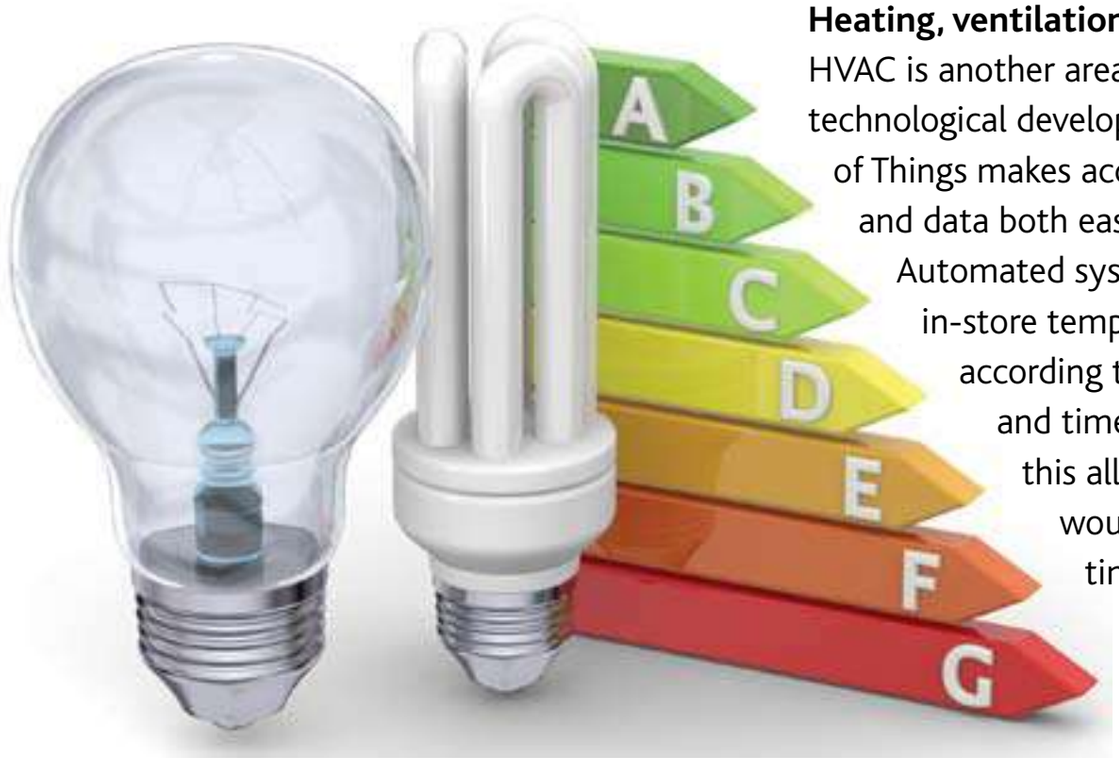
> Running cooler LEDs and automating your store lighting to ensure all non-essential lighting is switched off is also an effective way to reduce the heat load on your HVAC system.

In addition to moving to LEDs, you could also look at a smart lighting system, particularly for staff-only areas. Presence-detection lights work using small motion sensors in the light fitting, switching lights on and off as people move in and out of the area. These can be controlled via a dashboard accessible on a PC, laptop, or smart-phone, and with some systems you can include usage reports and consumption monitoring.

> It is even possible to centrally control your whole in-store lighting system, or systems across several stores.

Progressive controls will also adjust to harvest the natural daylight by adjusting their own light levels to a pre-set standard, and the system can be auto scheduled to allow for natural daylight hours. If you have not moved to motion-activated lighting, prepare schedules for front-and back-of-house lighting to ensure that you are not wasting energy with unnecessary lighting.

Solar powered lighting systems are a viable option but work best and are most cost-effective when installed as a complete unit, as they run on 12V DC.



Improving consumption in the bakery

Bakeries require their fair share of energy. Variable Speed Drives (VSDs) can be used to improve energy efficiencies. This is a device that can adjust the frequency to regulate and adapt motor speed, to match the actual demand required by the system or application it is driving, resulting in a reduction in energy consumption. These devices can be retrofitted to existing machinery, and advanced units of this type of device can be interfaced with a system to provide real time operating data on the status and performance of the motor. Technological advances in machinery and controls make the monitoring of energy consumption simple. An example of this is the Touch Screen Oven, which yields significant savings when compared to old-school manual ovens.

Heating, ventilation and air conditioning

HVAC is another area that benefits from recent technological developments. Again, the Internet of Things makes access to monitoring equipment and data both easier and more cost-effective. Automated systems can also control your in-store temperature and humidity levels according to the ambient temperature and time of day. Being flexible like this allows for energy savings that would otherwise be incredibly time consuming to achieve manually. Changing your air filters regularly, servicing your units yearly, and ensuring all air ducts are properly sealed are simple yet effective ways of increasing your HVAC efficiency. HVAC systems can also be retrofitted for increased energy efficiency by replacing the compressor, adding condenser fan controls, adding demand-controlled ventilation, and adding air side economisers to take advantage of cool outside air. Replacing old and worn-out seals and tubing and ensuring all components such as valves and compressors will keep the system functioning optimally.

International innovation

The EU climate targets for 2030 have encouraged increased innovation and development in several fields. Refrigeration, lighting, and HVAC technology are prime targets for energy savings, and companies like multinational engineers and

Naturally
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Our overall philosophy is based on four pillars.

- Sustainability
- Energy Efficiency
- Innovation
- Maximum customer benefits

"WE COOL AND YOU SELL" Plug it in, refrigerate or freeze, and sell more – that's our motto at AHT, which has been inspiring customers and boosting their business since 1983.

MANHATTAN - Food Retail

AHT has been the experienced expertise, product and service partner for leading supermarket chains and discounters throughout the world for decades.

The sustainability of our activity is visible in our daily work, our products, and our persistent development efforts. Thinking in a forward-looking manner.

Contact Us:

MULTILAYER TRADING

Phone: 021 851 9616
Email: sales@ahtafrica.co.za
multilayertrading.com

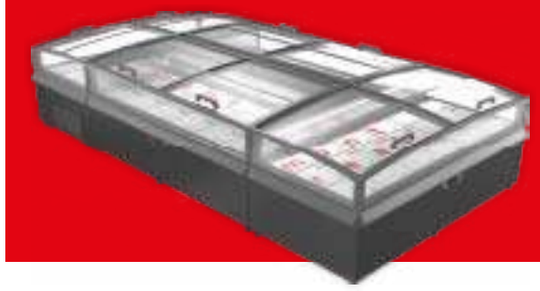
In a globalized world of constant change, we as innovation leaders think it is important to act sustainably and in view to the future. It is our duty to set standards which the following generations can build upon – about environment aspects as well as the ability to finance our future.

The advantages are obvious: Product safety, lower running costs.

AHT showed a "HERO retro chest" at Euroshop that has been used successfully every day for over 20 years. AHT was already focused on energy efficiency at that time. Since then, the technology for the presentation and storage of refrigerated and frozen goods has been continuously improved through more efficient components and new control strategies. As a result, it is now possible to achieve a daily energy consumption of less than 4kWh even with units that have a net volume of 1000 litres and more.

AHT is making a clear statement in regard to the global climate discussion. The most efficient island freezers are those with the closed glass tops. We are seeing a massive drive towards the R290 self-contained units.

With this update that has been in use since 2019, we emphasize our expertise in energy efficiency. We have once again managed to reduce the energy consumption of the AHT chest freezer fleet by up to 20%. It makes us especially proud that we have achieved these savings and at the same time have also optimized product temperature safety in combination with our new defrosting concept. Thanks to this efficiency, with the update, we have managed to achieve the lowest energy consumption in the industry. By using eco-friendly propane, AHT refrigeration technology lets the environment breathe.



Energy efficiency & Cost savings are critical in every supermarket, but how does a store go about achieving concrete savings in the current climate?

Plug-in for cool sales success

AHT is the inventor of the plug-in installation: the revolutionary Plug & Chill concept makes AHT's refrigerated multideck cabinets and chest freezers the logical choice for supermarkets to buy.

Sustainable cost reduction

Thanks to the complete integration of all the refrigeration components, no additional installation costs are incurred. This ensures that AHT appliances are convenient and reduces the cost of developing and/or refurbishing supermarkets.

1998 to 2020 AHT Is continuously expanding our position as a world leader – these principles guide us in everything we think and do!

refrigeration specialists Danfoss, Germany solar energy equipment supplier SMA Solar Technology, and Baltic-based commercial refrigeration equipment manufacturer Freor have embraced the challenge.

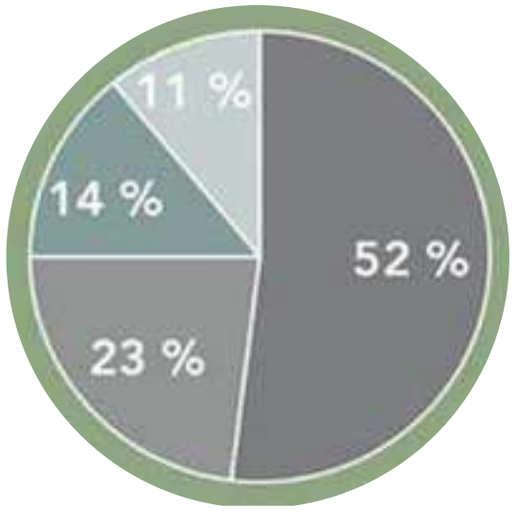
German supermarket Aktiv & Irma in Oldenburg engaged Danfoss and SMA to help them become a 'prosumer' – a consumer that produces and stores energy. The two companies worked together to provide the key components that would enable the store to run with an energy consumption level roughly 20% below the average for European supermarkets.

One of the systems installed enables the store to recover the heat generated by their refrigeration units and use this to heat their stores. They also installed a digital energy management solution using Danfoss' AK-SM 800 System Manager and SMA's ennexOS unit. Combined, the two components provide the store with an intelligent, two-way connection to the electricity grid and allows the supermarket to function somewhat like a giant battery that can store electricity when there is too much of it in the grid.

SMA's ennexOS unit can connect and manage energy flows from different sources to and from the store – including solar or wind power, and battery storage power. It can decide which source to use – and when – in the most energy effective way. The store also chose to install Danfoss' Multi Ejector Solution™. A sophisticated type of expansion valve, it captures the pressure built up by the supermarket's cooling compressors and sends it back into the compressors. As a result, the compressors use less electricity. The store had a 60kW lithium-ion battery installed in its control room, which provides some of the excess electricity needed during peak use, thus saving the company even more money.

The Freor Hydroloop system has been installed in several stores in the Netherlands, with energy savings of between 20% and 44% being reported. It is a cost-effective solution that connects plug-in refrigeration equipment to a liquid-cooled system, in which excess condensation heat is removed through liquid pipes to the exterior of a building. This closed-cycle liquid system uses a water pump to ensure circulation, while an outdoor dry cooler is used for effective heat recovery. The Hydroloop solution can be connected to Freor refrigeration multidecks, semi-verticals, serve-over counters,

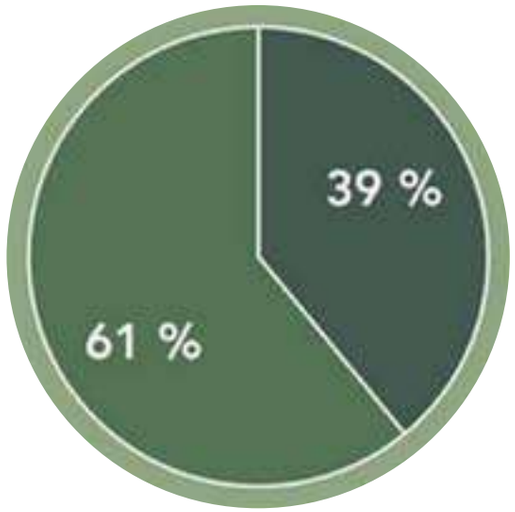
Supermarket energy usage



Refrigeration	52%
Lighting	23%
HVAC	14%
Other	11%

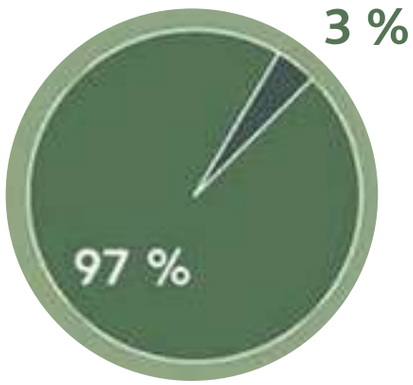
Energy consumption at the supermarket causes greatest impact on the environment. Refrigeration accounts for over 50% of total energy use in the average supermarket.

Supermarket TEWI (remote system)



- Direct effect to global warming 39% (from refrigerant leakages)
- Indirect effect to global warming 61% (from energy consumption)

Supermarket TEWI (Hydroloop system)



- Direct effect to global warming 3% (from refrigerant leakages)
- Indirect effect to global warming 97% (from energy consumption)

Hydroloop system by Freor helps significantly reduce both energy consumption and refrigerant leakages.

and freezers. An environmentally friendly propyl glycol solution is used for heat removal. Excess heat can also be used to warm up the shop during the cold season or to warm up water. The system is highly efficient, can be installed quickly, saves space, allows for the relocation of equipment, uses smaller quantities of refrigerant, and is easy to maintain.

Solar powered supermarkets

In a sunshine-rich country like South Africa, solar power makes sense. Even with Eskom's proposed new tariffs, which many see as a punitive measure against the increase in solar power as an alternative energy provider, being able to go off-grid is tempting.

> "Whilst remaining off-grid during loadshedding requires an expensive set-up of inverters and lithium or deep cycle lead-acid batteries to store and use solar or hybrid energy, this type of investment may be well worth the initial layout."

However, your batteries will eventually need to be replaced, solar panels will need to be cleaned and possibly replaced if damaged, and battery charge meters must be monitored – converting to solar is certainly not a case of one and done. Ongoing maintenance and management are necessary, but the ability to access constant and reliable power makes it worth the effort.

Alternatively, you can avoid the need for a hefty Capex outlay and instead pay only for the (cheaper) power produced by the system. Rent-to-own or a power purchase agreement are both viable options.

As the technology develops and becomes more popular, the cost is dropping, but depending on your store's power needs and the size of your system, you could be looking at paying R5 million, R10 million, or even upwards of R25 million. You also need space, whether it be a nice flat roof or a large carpark, to accommodate the solar panels.

Tim Frankish, Managing Director of the SolarSaver Group, says, "Solar electricity under a fully-funded rent-to-own contract or PPA can be anywhere from 25% to 50% cheaper than grid power during the day [in South Africa]."

This means retail centres can, depending on their electricity use and the size of their system, save anywhere from R50 000 to R100 000 on their monthly electricity bill.

Why does a STAYCOLD stay cold and save you money?

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Trust the Experience

Is solar it a viable option?

Shoprite Holdings certainly thinks so. As per the Shoprite Holdings website, www.shopriteholdings.co.za, "The Shoprite Group now generates enough electricity to power over 1 100 households a year from solar energy (12 300 MWh of electricity), following the installation of rooftop PV (photovoltaic) panels at 19 sites in South Africa and Namibia.

"The Group has also fitted 649 solar panels to the roofs of its refrigerated trucks, which generate 760 MWh annually – enough power to run 1 040 refrigerators for a full year. These allow drivers to switch off truck ignitions at delivery locations, reducing noise and exhaust pollution, while keeping the cold chain intact.

"There are now 18 stores throughout South Africa and Namibia in the Group that harness the power of the sun for their operations. These include Checkers Plettenberg Bay Mall, Sitari, Gordons Bay, Constantia, Hermanus, Whale Coast Mall, Welgelee Plein and Shoprite Strand (Western Cape), Shoprite and Checkers Parys, as well as Checkers Woodlands (Free State), Shoprite Rustenburg (North West), Shoprite Devland (Gauteng), Shoprite Kimberley and Kathu (Northern Cape) and Shoprite Oshakati, Otjiwarongo and Tsumeb (Namibia).

"And the Group's largest installation, at its Basson distribution centre in Brackenfell, is a remarkable move to reduce the company's impact on the environment. There are now enough solar panels at this distribution centre to cover an entire soccer field, and the 7 706 m^2 of panels have a generating capacity of 1MW."

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The human touch

Make sure that your staff understand the concepts behind energy savings and are trained to close fridge or freezer doors that are left standing open, switch lights off when not needed, and not run machinery unnecessarily.

Energy savings are not just achieved by investing in new technology or retrofitting existing infrastructure. Stores need to rely on human behaviour as well. From management to cleaning staff, there has to be education, understanding, buy in and action from all employees to engage in energy efficient actions and behaviours. **SR**

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