



MASSMART

GROUP UPDATE

Massmart measures its energy efficiency



Most South Africans and possibly most people in developed and developing societies are becoming aware that the supply of energy from natural resources is increasingly limited and more expensive, both economically and environmentally. Individuals, families, businesses and whole nations face necessary reductions in consumption.

Doing more with less is one of Massmart's key operational and environmental objectives. Massmart does not own a lot of prop-

erty, but it does use a lot of space. Massmart's stores, distribution centres and offices use electricity in their operations, so the group measures its usage on an ongoing basis. This is not only environmentally responsible, but it also helps keep operating costs down ahead of South Africa's rising electricity tariffs.

What guidelines does Massmart use?

South Africa's energy intensity measure, the energy used com-

pared with dollar Gross Domestic Product output, is the highest in Africa and one of the highest in the world. This means that the manufacturing, agricultural, commercial and service industries who are achieving this record are the same ones who must find efficiencies in their operations.

South Africa is party to more than 40 international environmental treaties as well as the UN Framework Convention on Climate Change, so there are national and global pressures to consider

climate change in domestic, social, business and environmental policymaking.

The South African constitution is the only one in the world that ensures the right of citizens to live in a clean and healthy environment. This offers environmentalists compelling legal justification for action against misuse of natural resources.

What can Massmart do?

For its supply, storage and merchandising activities, Massmart accepts the challenge of reducing the temporary waste resulting from energy and space taken up by unnecessary storage and distribution planning. International guidelines, for example the Kyoto Protocol, and South African policies such as the Polokwane declaration have begun to define objectives for energy efficient use of resources.

Waste disposal is also becoming one of the important measures in energy efficiency, for two main reasons: too much or unnecessary material is being consumed to produce products and waste itself consumes energy in its disposal. For organic matter, waste eventually emits greenhouse gases in its decay. For these reasons, Massmart is looking at responsible waste management much more closely.

Where the challenges occur is in actually getting the data?

There are nine wholesale and retail chains, 288 stores, and 470 buying group members within Massmart, so it makes sense to start with energy efficiency. *

Some large Makro stores have dedicated electricity supply lines supplied directly by Eskom. Here the data is accurate. Other large standalone stores, for example a Jumbo in a rural area, might receive its electricity bill from a regional municipality. This data is information about a month previously provided by the municipality

on behalf of Eskom.

Game stores, meanwhile, are usually located in shopping centres. In these cases, Game stores share the total electricity bill the landlord receives with the other tenants in the shopping centre. Stores' individual usage is often not metered and measured; tenants pay according to the space they occupy plus a portion of shared space, not for their actual usage. Usage data received in these cases is in no way an accurate reflection of the store's usage. It is for this reason that Massmart wants to install meters in as many of its stores as possible.

Rollout of these meters is prioritised by usage, so the biggest stores will be metered first. Although the process began recently, already 90% of Makro stores have meters. By March or April 2011, between 80% and 90% of Builders Warehouse stores should also be metered. The data itself is also vast and complex and is challenging to put together into meaningful findings. The meters Massmart is installing are uploaded onto a database and managed by a third party supplier.

Without meters, stores' electricity consumption data is captured manually and human error can creep in and distort the accuracy of data. So, the accuracy of electricity usage data is also being improved through the use of meters.

How are we improving?

Our first steps included the promotion of Eskom's recommendation of using energy efficient light bulbs. This small initial step is a measure that fits our overall strategic philosophy since it has advantages both upstream (in-house exemplary energy reductions) and downstream as well (promotion of increased sales of these light bulbs in our stores, benefiting

consumers' ability to reduce their energy consumption).

Massmart stores and offices have switched to energy efficient light bulbs and installed timer switches to turn off lights when not needed. The savings we have been made as a result of this first, common sense changes is an 8% savings in Massbuild and 2% in Masswarehouse. We have also found that we achieve better results building efficiency into new stores than from retrofitting older sites. This makes Massmart more optimistic about seeing improvements linked to energy efficiency specifications in the new stores that are being opened.



Our aspiration is to develop new stores according to minimum energy efficient standards for lighting, insulation, air conditioning, refrigeration, office equipment and water consumption solutions. For older or existing stores, we look for ways to leverage opportunities to retrofit them with energy efficient technology and water consumption devices that meet at least minimum standards. To assist the government in its Polokwane goal of reducing waste generation and disposal, we are beginning to operate active recycling programmes covering all waste categories (for example glass,

cardboard, plastic and e-waste recycling).

How much space do we include in our measurements?

Massmart operates hundred of stores and these have varying amounts of space around them including outside paved areas, inside storage, administrative space and employee areas. All of these different operating spaces and the customers inside them have different electricity needs, so part of the challenge in generating meaningful energy efficiency data is determining how much of what kind of space Massmart should include in its consumption data. Other questions we have considered are: Should it be gathered into units of user by user? Or structured into comparable, like-by-like units? Should it focus on month-by-month or year-by-year comparisons? By seasons or by financial year reports? Or should consumption be measured according to trading area? The metering solution in our stores can address many of these accuracy and timing issues.

Encouraging suppliers and customers to save energy, too

As a business, Massmart wants to advocate efficiency measures that recognise and respect the rights of our partners in this mission. Besides reducing consumption is our own operations we play important supplier advocacy and consumer advocacy roles.

One constraint we have found is that a low percentage of South Africans spontaneously identify environmental issues amongst those that they want government to address. Respondents to Unisa consumer surveys revealed that they often consider environmental choices when shopping, but are not prepared to pay more for environmentally friendly products. We are all purchasers and consumers of energy and products, so the targets of efficiency in energy use also have to include mass consumer education and public awareness.

Our practical initiatives include:

- 1) advocating improved merchandise labeling standards to incorporate accurate and appropriate environmental warning and advisory information, and
- 2) sourcing and offering to consumers sensible and equal material value optional merchandise in selected ranges.

We are expanding our programme to provide consumers with access to recycling facilities at selected standalone stores. For our chain stores and those included in a shopping area, our hope is that over time we can include their commercial neighbours in this kind of waste reduction facility.

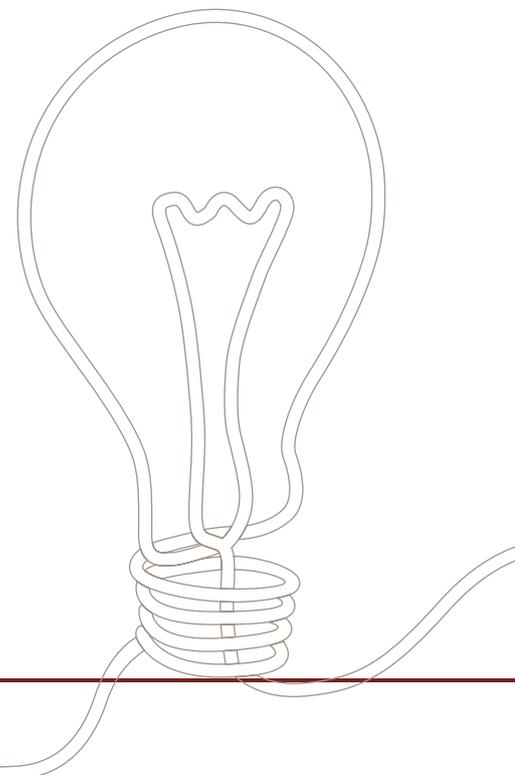
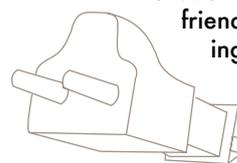
These are just the practical, operational measures we have started for our consumers. Bringing our customers up to the level of green awareness and product choice criteria that has been developing elsewhere in the world is impeded by the same historical residue that makes our national efforts at health and education improvement challenging. Our long term goal in promoting an informed and environmentally sensitive public is only possible over time, with the leadership and support of national and local governments, educational institutions of all levels and the business community as a whole.

In supplier advocacy, meanwhile, our efforts include implementing environmentally friendly sourcing

guidelines for Massmart buyers. Since our divisions and group management use our channel and forum communication functions to identify common opportunities and solutions, information about new sources of products and services spreads quickly. Together, the members of the group track our top 200 suppliers' environmental performance through an annual environmental survey. We hope to use this as the basis for encouraging specific energy use reforms where they most benefit the business operations of the group and the total reduction of energy use.

We have also been encouraging suppliers themselves to assess packaging waste, placing emphasis on firstly reducing product packaging and converting to recyclable or compostable packaging. Again, such up-stream down-stream benefits fit our goal of doing more with less energy.

Our overall goal is to improve our energy efficiency and encourage our stakeholders to do the same for the good of our business, South Africa, Africa and all the communities in which we operate. ■



* Please see *Massmart measures its energy efficiency for more information.*