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Immediate Release

Shine a light on your electricity bill

Life in South Africa seems to be getting more expensive with every passing day. One thing that households can influence, fortunately, is their electricity bills. And no, you don't need to start with solar panels or gas stoves. Simply changing your lighting will make a big difference.

"Energy efficiency is what it's all about," says Dr Karen Surridge of the South African National Energy Development Institute (SANEDI). "By changing your behaviour and your equipment, you can manage electricity demand in your home and, as a result, reduce your electricity bill." This is an example of what is known in energy industry terms as demand side management. When enough consumers (households, businesses and industries) manage their demand, the impact supporting the electricity grid is significant.

But even when your neighbours don't come to the demand side management party, your household on its own can benefit greatly from adopting energy habits that are more efficient.

Surridge says that lighting often doesn't get the attention it deserves when it comes to energy efficiency measures. "While it usually gets mentioned in the list of things people can do, we tend to focus on the more 'exciting' technologies, such as solar geysers or solar panels. Lighting, however, punches far above its weight when one considers the impact it makes."

As with all energy efficiency measures, there are two components to managing your lighting, namely the technology and our behaviour.

"Behaviour starts with the decision to live a more energy efficient life," says Surridge. "That commitment then plays out in switching off lights in rooms that are not in use and changing the settings on outside lights to only come on automatically when their sensors pick up movement at night and not when it gets dark. You can save without spending any money by simply using lights only when you need them."

The second component is the equipment you use in your home. Again, it couldn't be simpler: swapping your incandescent or fluorescent lights for LEDs will change the quality and quantity of light in your home and save you money.

Surridge explains that one 60W incandescent lightbulb uses the same amount of electricity as 12 LEDs of 5W each but provides far less light. Given how bright a 5W LED is, you won't need 12 to do the work of one incandescent bulb. This means that the electricity that powers two bedside lamps with incandescent bulbs is enough to light up your entire house if you invest in LEDs. In addition, you get clearer, better quality light and LEDs last up to 50 000 hours equating to 17 years at 8 hours a day, compared to the 1000 hour lifespan of an average incandescent light, giving a mere 4 moths at 8 hours a day of use.

Another noteworthy advantage of LEDs is that they can run on direct current (DC), which means you can use a battery to power them. "People living in informal settlements or who don't have grid electricity don't have to make do with a bare, dim lightbulb hanging from the ceiling and barely lighting up the room," says Surridge. "They can replace it with an LED and get much better light for far less electricity."

LEDs also don't get hot like incandescent lights do, making them far safer for children. "A hot incandescent globe can give you a nasty burn – as I discovered when I was a child!" Surridge adds that incandescent lightbulbs generate more heat than light, which is what makes them so inefficient.

The business case for households is clear when it comes to energy efficient lighting. Savings obviously differ depending on the size of your home and the number of lights you have, but an average suburban household can reduce its electricity usage by at least 15% by installing LEDs and switching off lights in unused rooms. As a spin-off, when enough of us reduce our electricity demand, loadshedding will become less severe.

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