

### **A company guide for practical approaches to cost saving**

In the realm of Facilities Maintenance and Management, sustainability refers to the process of reducing the impact of the built environment on the environment. This impact includes our dependence on fossil fuels mainly through the use of electricity, the usage of water, and the overall use of consumable products that are used on a daily basis to operate our businesses. Given the dynamics of our society and culture, how do we encourage companies to implement sustainable or “green” initiatives?

Our buildings and their surroundings consume large amounts of electricity for lighting, air conditioning, pumps, as well as all of the electric and electronic equipment. In the context of T&T, we tend to take this for granted since our electricity costs are subsidized and are very low compared to most countries. While the most talked-about methods for reducing dependence on fossil fuels include the use of solar power or wind turbines, these solutions are still very expensive and not feasible in our scenario. How then can we encourage companies to focus on reducing electricity usage without incurring huge costs?

We have already witnessed the move away from incandescent bulbs to compact florescent lights in the home, significantly cutting power consumption. In commercial spaces, the most popular lights are linear florescent bulbs, which are already fairly efficient, but there are opportunities for improvement. Many buildings still use old technology, utilizing magnetic ballasts and inefficient tubes. Retrofitting your lighting can often reduce consumption and will invariably increase the quality of light and reduce ongoing maintenance costs; new electronic ballasts do not need to be changed regularly. LED tubes have also been introduced, reducing cost further; however the cost may still be too high for most people’s pockets.

Let’s look at all of the commercial buildings whose lights remain on all night. Is it that we do not like to turn off the lights? Occupational sensors, essentially motion sensors, can be utilized to eliminate this practice; when the building empties at night, the sensor will switch the lights off. If it is necessary to leave a portion of the lights on for safety purposes, these can be wired so that they stay on. Other inefficient light sources such as sodium-vapour lights used in warehouses and car-parks, have also been changed to florescent or LEDs in many cases, reducing power requirements.

Day-lighting techniques utilize ambient light to reduce the need for electric lights, in some cases at least for part of the day. Skylights and windows that light common areas are provide economic solutions.

Air-conditioning systems are also high users of electricity. Dirty filters, ducts, and vents, worn bearings and belts increase the power demand considerably. Consumption can be managed by properly servicing units regularly and insisting on a proper preventative maintenance plan be put in place and monitored and there is the added benefit of improved air quality. Good temperature control systems also help to manage electricity usage. The most common complaint in Facilities

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Management by tenants is temperature control, and many companies reduce the temperature too much, insisting that employees dress appropriately in order to manage

Reducing the overall heat-load of the building by planting trees near to buildings is a viable and inexpensive addition. The shade keeps the surrounding areas cool, improves the air quality and encourages bird life as a bonus. There is a line of trees on the pavement on Park Street in POS and in the late afternoon, they are alive with hundreds of birds.

When we consider the use of water, we are generally very complacent, however water is not an endless resource, even in T&T. Significant additions to the nation's water capacity will only be possible through the use of expensive equipment. Water reducing devices are fairly inexpensive and include aerating faucets and water-efficient toilets. Run-off water can be captured and stored in tanks and cisterns for use for landscape watering and non-potable uses.

Recycling is not a large part of our lives either. Much of the recycling work done in T&T comprises only part of the recycling cycle, namely collecting and compacting waste and then exporting it to large recycling plants (the main exception is glass, which is recycled fully here). Companies and households can still play their part; there are companies who will collect and even shred your used paper and will collect plastic and glass waste.

Avoidance of waste is a little more difficult because it requires encouraging employees to change their mind-set and behaviour, but it is being done. Using the re-usable 5-gallon bottles of water instead of smaller disposable bottles is a start. Changing to water filters installed in the faucets goes a step further to reduce consumption. Electronic records instead of using paper, reduces consumption, and storage-space needs.

These initiatives can all be implemented fairly easily and will generally also save companies money. It is important to build a corporate culture that embraces environmentally sustainable practices. The best place to start is with the low hanging fruit.