

The Daily Gleaner

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By Sonya Hull

You've Got the Power to Use Less Power

Energy industry demand side management experts say, “the cleanest energy is the energy never used”. For example, a business installs solar panels but does not replace inefficient light bulbs and air conditioners. If inefficient devices were replaced with efficient ones, there may not have been a need for solar panels in the first place. Clean energy powering dirty devices does not solve our long-term energy dilemma. For this reason, President Barack Obama calls energy efficiency and conservation “the cheapest, cleanest, fastest energy source.”

So, despite the critical requirement to clean up our global energy sources and move away from fossil fuel-based energy, we need to ‘bring home’ the responsibility too, because each of us has the power to use less power – that’s clean energy, right here and now.

So what’s the difference between energy conservation and energy efficiency? Although these terms are often used interchangeably they are actually quite different. Both involve a reduction in overall energy use, but they each achieve that goal in a different way. Conservation means reducing the overall use of energy by using and wasting less, whereas energy efficiency means getting the most productivity from every unit of energy.

Put another way, energy efficiency means using technology that assures production of the same level of output while using significantly less energy. An ideal example of energy efficiency is the compact fluorescent light bulb (CFL). The energy requirement for a CFL is much less than for an incandescent bulb, yet light output is the same for both. Thus, one’s ability to conduct daily life is relatively unchanged. Looking at it from a macro perspective, energy efficiency means society gets its desired energy services — comfortable homes, profitable businesses, convenient transportation — with less energy use, fewer GHG emissions, and lower total cost.

Now think about energy conservation via a similar example. Turning your heat down in the winter conserves energy. However, you are impacted by this action – you may feel colder and have to wear more layers of clothing. So, your life is slightly different and perhaps you feel inconvenienced. Energy conservation often involves behavioral change, whereas energy efficiency may not.

However, on the demand side BOTH efficiency and conservation are critical elements required to solve our energy woes - and they have the most impact when they are a pair! For example, you can replace your old air conditioner with an efficient one, but you will still waste energy if you run it when you are not home. You make the most impact when you have an efficient appliance AND you choose to run it less – efficiency and conservation.

Energy conservation has not been as popular as energy efficiency because it is often associated with sacrifice. If I don’t leave my air conditioner on when I go out, my house will be too warm

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when I come home and I will be uncomfortable until it cools down. But if I buy an energy efficient air conditioner instead, I save energy without changing my behavior.

But changing human behaviour really matters, and our energy dilemmas will only be solved when demand side management capitalizes on both conservation and efficiency.

So as the summer heat and humidity hits us, make some powerful clean energy choices, turn off the switch and 'leave power unused'.

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