

Set high temperature, save energy

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The heat is on! Once within the comforts of an air conditioned space, the first thing cranked up is the fan, and then the temperature on the thermostat lowered to usually between 18-20°C to quickly cool off and get comfortable. This everyday routine becomes frenetic as we scurry between homes, cars and offices in the summer months of April and May. In reality, what is the balance between comfort and eco-footprint? In other words - what's the most efficient way to cool down? Some are myths like turning down fan levels of the AC, saves energy. Others are questions such as, why a ceiling fan and air conditioner running together is a big NO.

It is worth considering the gyaan of grandparents and viewing them in a modern workable context.

ASHRAE was formed as the American Society of Heating, Refrigerating and Air-Conditioning Engineers in 1959. They in their temperate wisdom defined the 'comfort temperature' as 22°C, and this has become a global norm. Air conditioning equipment manufacturers in our country too have thermostat settings as low as 18°C! We live in tropical / sub-tropical climates where it is mostly hot and humid, or hot and arid. In my experience, most Indians would find 22°C 'too cold'. My office is designed for 25-26°C. The general rule is that lower the set temperature, the more the energy used. For each degree set above 22°C, the AC uses 3 to 4% less power. By setting the temperature as high as is comfortably possible, higher will be the resultant energy savings.

Also, jump-starting an AC to cool a space with a thermostat set at, say 20°C drives the compressors to relentlessly work with a huge differential, when the outside is at say, 40°C. The cooling capacity of the machines have a limit. Setting low normal temperatures will not perceptibly cool the room any faster, and will just cause a bigger hole in your electricity bill.

The second myth buster is that of ceiling fans in combo with air conditioners. In fact, with a ceiling fan on, the constant movement of air ensures that the overall room temperature remains uniform. Thermostats do not get the luxury of switching off due to cold air pockets inside that gradually dissolve. It takes longer to cool down. Turning down the temperature and cranking up the fan simultaneously is probably not the most energy efficient of ways, but it seems to keep us comfortable. Experiments show that a saving of 0.4 units of electricity per hour is possible while comparing an AC running at 22°C and NO fan vs an AC running at 26°C with a fan. This could cost `35 per day or `1,050 per month!

If you are lucky enough to be shopping for new AC's at this time, ensure buying a BEE Star Rated AC. This just means the AC uses electricity judiciously and keeps energy savings as a top priority! Also, clean the filter pads and maintain existing ACs so they are set for top performance in the summer months. So go ahead, wear cottons, turn on your fan, set higher temperatures and stay cheerful while keeping electricity usage in check this summer! Now isn't that just chill?!