

# Have we brought power cuts on ourselves?

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**N**ot much attention has been paid to energy conservation as a means to reduce the country's power problems.

In average middle class homes, the refrigerator, the water heater and the air-conditioner would account for much of the power consumed. In other words, heating and cooling constitute the major chunk of power consumption. Certainly, in the present day, every average middle class Indian home uses at least the refrigerator regularly. It accounts for 25-30% of power consumption at my home (I do not use an electric water heater or air-conditioner).

I am no Luddite but certainly need to re-think on the usage of these appliances. I would leave out the water heater (which is used only during winter when it is unavoidable), take up air-conditioning later and discuss the refrigerator first. This is probably one of the few appliances that runs and consumes power throughout the day.

Stored in the refrigerator are vegetables, milk, packed curd, dosa/idli batter, leftover food items, bread, biscuits, fruits, jam, pickle, meat, eggs, water, ice-cream/ice and the like. This is a result of our changed lifestyle and the fact that we no longer use alternative methods that would have been used had there been no refrigerator at home. Leftover food, large quantities of vegetables and fruits, bread and biscuits occupy the refrigerator just because we have a bigger than required storage space. We prefer to store vegetables bought in bulk for a week or two to

buying them on a daily basis as we used to do a decade ago.

## Changing lifestyle

The changing lifestyle has led to vegetable vendors vanishing from streets. We shop at retail outlets on weekends. Now that we have stopped preparing meals in the right quantity, we always have leftover food to be stored. We no more prepare curd, nor do we use earthen pots to keep water cool during summer. In fact, it is difficult to find earthen pots sold on the streets these days.

If we revive some of these forgotten methods and switch back to the olden ways of purchasing vegetables, fruits, egg and meat as and when required, we could manage with a smaller refrigerator and thus reduce energy consumption to a great extent. Probably, we require just less than half the refrigeration space that we use now. Further, by choosing to have ice-creams only at shops, we would not need the deep freezer. Only essential items will remain in the refrigerator.

## Switch to CFLs

Indian homes should switch to compact fluorescent lamps (CFLs) or the LED based lighting instead of using incandescent lamps, which are being phased out in many countries.

Unlike many western countries, we are blessed with a climate that does not necessitate (in most parts of our country) any heating or cooling system in buildings apart from the use of fans. But in recent years, there has been a surge in the use of air-conditioners in both domestic and commercial establishments. (Even in

Bangalore — where I stay — air-conditioners are used though the weather is pleasant almost around the year). A decade ago, air-conditioners in shops were a rarity. Now, every moderately sized shop, mall, supermarket, cinema hall and the like are air-conditioned. It is luxury and not necessity that drives the use of air-conditioners.

If the practice is left unchecked at this stage, we would soon get addicted to air-conditioners, considering them a necessity. Though one might argue that the growth of industries in the past decade is what has contributed mainly to the increase in power requirement in the non-domestic sector, a survey of power consumption due to use of heating/cooling in commercial establishments would certainly indicate their significant contribution to the power requirement from this sector. In my opinion, a ban on use of air-conditioners in commercial establishments will not be a harsh regulation.

## Industry sector

On the industry side, the software boom in the last decade has also contributed to the increasing use of air-conditioners. While it is true that servers in these companies do need cooling systems, it should be analysed whether entire buildings need to be air-conditioned.

Again, in commercial and industrial establishments, the use of power for lighting, operating elevators/escalators and the like needs to be regulated.

## Role of the government

It is certainly an individual's responsibility to cut short his/her energy consumption. However, government can introduce regulatory and educational measures to bring it down. I put forth some measures one can immediately think of.

1. Classify home appliances into categories of luxury and necessity, and into higher and lower energy-consumption, and impose very high taxes (that will make

people avoid buying them) on those which fall under the luxury-cum-higher energy consumption category. For example, a smaller-sized refrigerator (say, less than 100 litres capacity) can be considered a necessity, while a larger one can be considered a luxury and higher energy-consuming.

2. Phase out and subsequently ban incandescent lamps. Subsidise CFL to those who cannot afford to buy it (when some States can

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hand out laptops for free, this certainly is possible). And, take measures to safely dispose them of after use.

3. Plant and maintain trees in residential areas so as to have natural air and cooling.

4. Set up shop space for vegetable vendors in resi-

dential areas so as to encourage people to buy vegetables and fruits regularly.

5. Have a different electricity billing plan for houses with air-conditioners (already being done to some extent as electricity charges mostly increase when the total monthly consumption is

more than a minimum limit).

6. Ban air-conditioners in shops, malls, cinema theatres and the like.

7. Make it mandatory for commercial establishments like malls to have some percentage of the total space allotted for planting and maintaining trees around the building.

8. Educate people on energy conservation methods (say, through advertisements in popular media

channels).

9. Form an expert committee to study possible means of reducing energy consumption in the country and implement feasible methods at the earliest.

With proper energy conservation methods, our country can very well be rid of the power problem for several years with the existing power production.

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## Our ancestors had no power... no problems either

P. Subramanian

**P**ower holidays and outages have become the order of the day. People who face eight-hour blackouts are demanding that everyone else should suffer the same fate. The demand for power is going up. But production is not increasing proportionately. Blackouts are only going to increase in duration.

Citizens should learn to live with the outages. During unscheduled power cuts, the lady of the house bemoans that the overhead tank has not been filled and chutney for the meal is not ready.

During my school days, I spent many summer vacations with my grandparents in a village in Kerala. I had first-hand experience of how my elderly relatives survived without electricity.

My grandfather taught me the great epics and how to read and write Malayalam. Those lessons were taught during daytime. My grandparents woke up early in the morning so that enough daylight was available for all daily chores.

Water was drawn from a well in the backyard. No electric motor was employed. For taking bath, we went to the village pond. Clothes were dipped in the pond, pummelled on the granite steps and rinsed. No

washing machine or water heater.

My grandmother used firewood for cooking. No microwave, mixer and grinder were employed in the kitchen. Masala and chutney were prepared with manual stone grinders. Smoke billowed from the kitchen on rainy days because of wet firewood. A chimney partly vacated the smoke.

The puja room had lamps made of brass. Gingly oil with cotton wicks were used to light the lamps for puja. My grandparents recited religious scriptures either

from memory or by reading books under the oil lamps. No need for electricity.

Dinner was eaten early at sunset, so that no activity took place at night under a kerosene lantern. Even when electricity came to the village, the voltage was so low that bulbs were no challengers to the lanterns. Since my grandparents had grown up without electricity, the introduction of electricity in the village and their house never made any difference to their daily life. The low voltage only made the bulbs conk out early, a drain on the wallet.

After dinner, we sat on the veranda, chatted for some time and went to bed early. We used hand fans, made of palmyra leaves, until we fell asleep.

An employee of the village panchayat went round lighting kerosene lamps at street-corners. That was more of an official requirement than of any use to the villagers. Hardly anybody stirred in the dark and if people were forced to go out for any reason, they would carry lanterns which withstood rain and winds.

We are now used to electric power and if power

fails, we feel miserable. Maybe, we can recall how our ancestors managed and grin and bear the misery caused by power-cuts.

If mosquitoes come buzzing around, we can follow our ancestors' methods. They burned incense and dry neem leaves in a coconut shell and ward off the pests. If any mosquito evaded the smokescreen and disturbed our sleep, we would employ our hands to slap and silence the intruder. The method is tried successfully in many households even today after they have exhausted chemical pesticides and electric devices.

If there is no water supply from the tap, a rope and bucket can be employed to draw water from the sump or well. It will be good for the muscles and bones.

Children should be encouraged to do their homework in daylight. It will be good for the eyes and for peace of mind.

Housewives should keep a small manual stone grinder in the kitchen so that cooking need not be interrupted by a sudden outage. If all good men learn to live with the inevitable power shortage, the men in power will be spared the curses of frustrated citizens.

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