

Energy Conservation

1 unit of electricity saved = **2** units of electricity generated



நாம சேமிச்சா நம்ம சுத்துப்புறம் செழிக்கும்;

நம்ம நகரமும் மின்சிக்கன நகரமாக

நாமும் பாடு படலாமே !

மனத்துக்கண் மாசு இலன் ஆதல் அனைத்து

அறன் ஆகுல நீர பிற.

மனசுலே மாசு இல்லாம நாம சுத்தமா இருந்தாலே
ஒரு வகையிலே நாமும் அறம் செய்த மாதிரி தானே?

அறன் செய விரும்பு - திறன் பெற விரும்பு

எல்லாருக்கும் தேவையான சக்தியை

நாம மிச்சப்படுத்தறது ஒரு வகையிலே

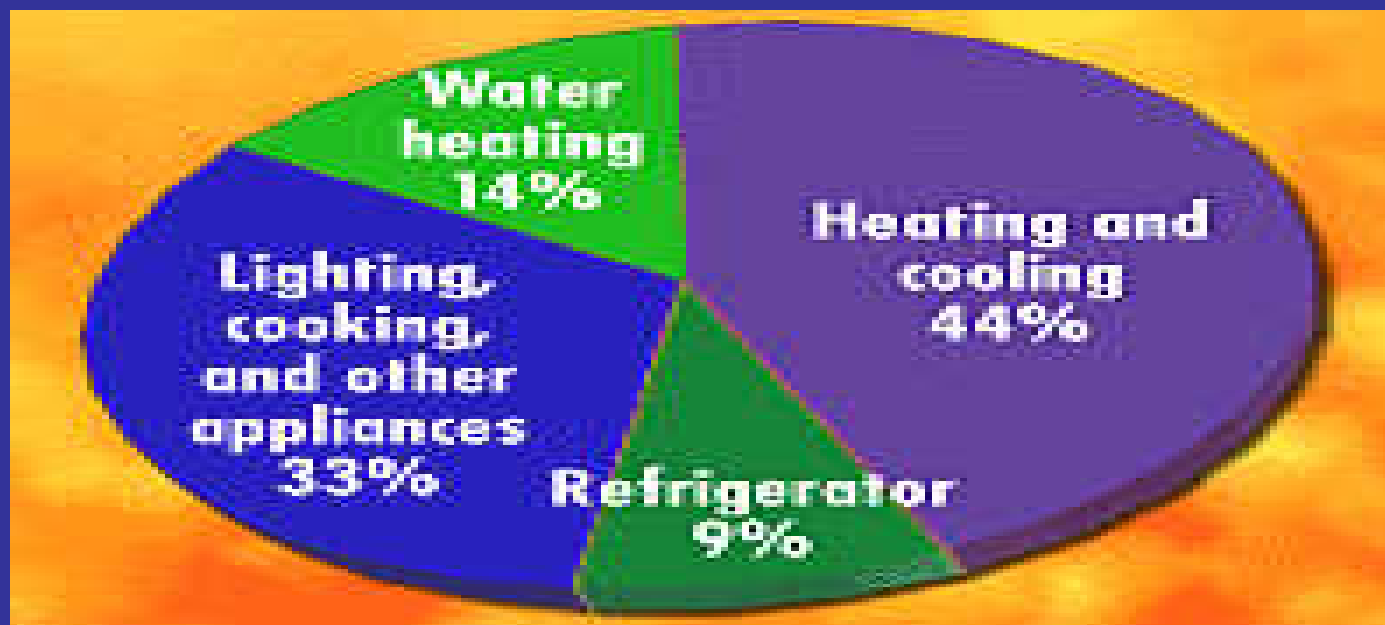
நாமும் அறம் செய்த மாதிரியே

விரும்பி நாம அறம் செய்யணும்

Kindly analyze what is the break up of your house electricity consumption in units per day as per EB bill

Your daily consumption will be 5 to 10 units per day.

If you use your AC, then 10 units per day is added.



Electricity consumption / day of Domestic Appliances

Appliances	Capacity	Consumption
Instant Geyser	3000 Watt	3 units / hour
Immersion Rod	1000 Watt	1 unit / hour
Air Conditioner	1500 – 2500 Watt	8.5 – 14.5 units / day
Air Cooler	170 Watt	1.7 units / day
Fan	60 Watt	0.6 unit / day

Savings in water Geyser

Set Geyser to = Body temperature $37^{\circ} \text{C} + 10^{\circ} \text{C}$

we have to set our Electric storage water heaters at that is 10°C plus 37°C , our body temperature. 47°C (instead of 60°C setting already set in your geyser)

Warm water is better to health than hot water
in long run & 20 % power savings.

First, buy today one Spare Heating element for just
Rs.200/- and swap it before winter onset every year.

CEILING / TABLE FAN WHERE & WHEN TO USE ?

- Heat enters thro Terrace 50 %, then come thro doors and windows 30 %, through the walls 15 % and etc.

Do we get blast of air or gentle and smooth air breeze?

If air breezes, it comforts us by evaporative cooling

If air blasts for whole night, we get up only, tired.

Old & Heavy wt. fans consume around 80 - 100 watts.

Branded light wt fans consume around 50 watts only.

Ceiling fan Savings

- Use Step type switching Electronic fan Regulator
(instead of knob type is failure and obsolete)
and Save 30 % power.
- The old box type regulator only regulates the air breeze but the fan is consuming full power only.
- This is the symptom of manual regulator failure
and replace today with Electronic type.

Electricity consumption / day of Domestic Appliances

Refrigerator	200 / 300 / 500 Watt	2 / 3 / 5 unit / day
Electric Kettle	1000 – 2000 Watt	1 - 2 units / hour
Hot plate	1000 – 1500 Watt	1 – 1.5 units / hour
Oven	1000 Watt	1 unit / hour
Toaster	800 Watt	0.8 unit / hour
Iron	750 Watt	0.65 – 0.75 unit / hour

**BEE -Single star rated Fridge consumes 3 units / day.
Five Star rated Fridge consumes 1 unit per day**

Energy and Cost saving for 250 Litres Frost Free Refrigerator at different Star Rating

Star Rating	Energy Consumption Per Year (Approx.)	Per Unit Charge Rs. (approx.)	Electricity Cost/Year In Rs.	Total Saving (w.r.t No star) Every year (Rs.)	Refrigerator Cost in Rs. (Approx.)	Cost Difference Rs.	Pay Back Period In Years
NO STAR	1100	2.50	2750	0	14000	0	0
1 (One)	977	2.50	2443	308	15000	1000	3.25
2 (Two)	782	2.50	1955	795	15500	1500	1.89
3 (Three)	628	2.50	1565	1185	16500	2500	2.11
4 (Four)	501	2.50	1253	1498	17500	3500	2.34
5 (Five)	400	2.50	1000	1750	18500	4500	2.57

FRIDGE SAVINGS & Frequent openings

- Fridge motor & compressor generate heat.
- Allow enough space for airflow around fridge.
- Brushing coils improves efficiency up to 30 per cent.
- Check Fridge's rubber door seals are clean and tight.
 - Icing above $\frac{1}{4}$ inches in Freezer reduces cooling.
- Defrost freezer regularly for a manual defrost fridge.

FRIDGE SAVINGS

The only appliance working 24 hours in a day is fridge.

With daily power cuts, it is safer to fix a Time delay
model voltage Stabilizer (preferable with voltmeter)
and high low voltage cut-out options, to the fridge.

This applies to sophisticated electronic gadgets,
lighting in domestic & commercial areas.

**BEE Single Star rated 1.5 Tr AC consumes 9 units / day
Five Star rated AC – consumes 6 units per day.**

Energy and Cost saving for 1.5 Ton Windows or Split Air conditioner at different Star Rating

Star Rating	Maximum Cooling Capacity (Watts)	Minimum Energy Efficiency Ratio (EER)	Input Power (Watts)	Units consumption /Day (kWh)	Per Unit Charge Rs. (approx.)	Electricity Cost/ Month Rs.	Cost Saving Rs. Per Year (w.r.t. No star) (Approx.)
NO STAR	5200	2.20	2364	9.45	2.50	709	0
1 (One)	5200	2.30	2261	9.04	2.50	678	308
2 (Two)	5200	2.50	2080	8.32	2.50	624	851
3 (Three)	5200	2.70	1926	7.70	2.50	578	1313
4 (Four)	5200	2.90	1793	7.17	2.50	539	1712
5 (Five)	5200	3.10	1677	6.71	2.50	503	2059

Note: Assuming 8 hrs. operation per day for five months in a year

Air conditioner cutting / Savings

Our body temperature is 37*c we have to set at 27 *c
at is 10* minus body temp. 27*C (instead of 22* set now)

Cool air breeze is better to health & 15 % power savings
You can pls help environment by not warming up more.

Put your outdoor unit under shade in open terrace &
will consume around 10% less electricity & run healthy.

AC efficiency improves and it can be seen by fitting
AC machine Run hour meter & gives run hours / day.

Electricity consumption / day of Domestic Appliances

Fluorescent Lamp	40 / 20 Watt	0.28 / 0.15 unit / day
Slim Tube	36 Watt	0.26 unit / day
Compact Fluorescent Lamp	7 / 9 / 11 / 13 Watt	0.06 – 0.09 unit / day
TV	180 Watt	0.2 unit / hour
Vacuum Cleaner	800 Watt	0.8 unit / hour
Desktop Computer	120 Watt	0.13 unit / hour

Lighting purpose – General or Visual tasking ?

Usually light is needed as follows, depending upon the age:

10 years children	1 time
20 years boys	1.5 times
30 years persons	2 times
40 years man	3 times
50 years man	6 times
60 years old people	15 times

LIGHTING – COMFORTS / HURTS YOU ?

- Sunlight is available abundantly free of cost.
- Make max use of daylight & reduce artificial light.

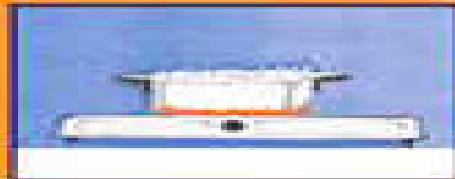
A so-called zero bulbs use 12 to 15 watts per hour.
In our old watt hour meter, zero watt bulb did not record

New electronic meter records even minute loads &
show 15 % more & hence now only shows correctly.

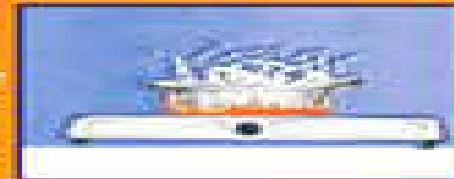
Now our domestic electronic power meter records what
we consume correctly. Let us pay for what we consume.

'Flat 20 per cent off on cooking gas LPG, for Alert & Conscious housewives only'

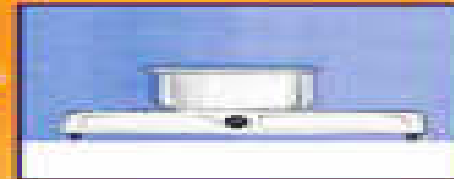
SAVE GAS, SAVE MONEY.



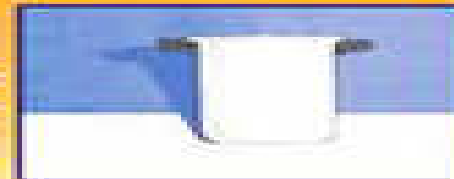
Reduce the flame when it begins to boil



Use pressure cooker for quicker cooking



Use wide and shallow vessels to maximise flame usage



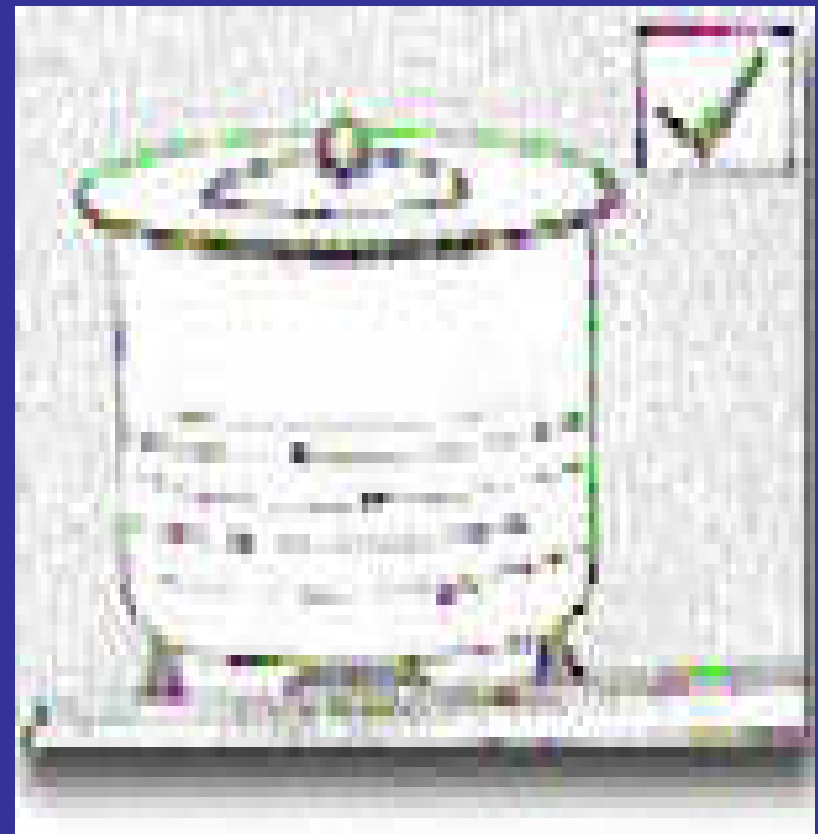
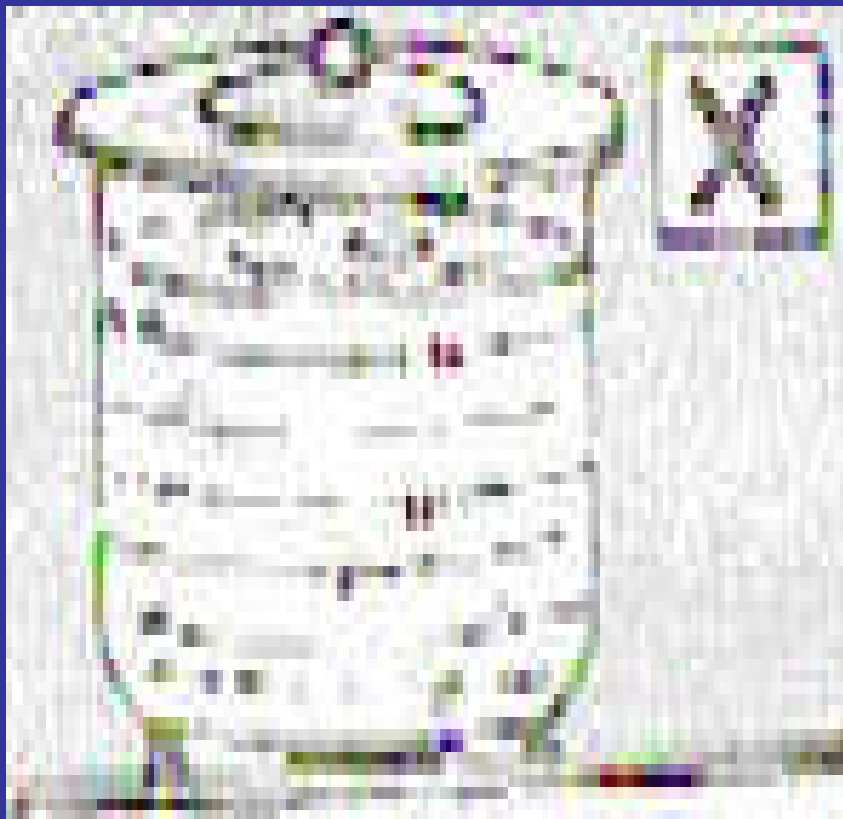
Keep your gas burner clean



when cooking rice in with double quantity of water =

LPG consumption in Stove increases by 65%

use only optimum quantity of water required for cooking



When a vessel's contents reach boiling point,

a low flame is enough to keep it boiling.

Experiments show saving of 25% LPG

when the flame is reduced after boiling had started



When you go home today, please look into the Burner head in your LPG stove.

**Does your burner head look like this
burning and clogged soot inside ?**



DOMESTIC LPG STOVE SPARE BURNER As Consumable.

**Focus area – In the LPG stove, the gas burner head
to be treated as a consumable.**

**Even if the color of flame is blue, still by replacing,
the potential for LPG saving is UP TO 10 %
by this Easy-to do & instant- result one time exercise.**

**This swapping to do as and when the existing burner in
stove is clogged with more soot inside.**

PETROL SAVING IN OUR VEHICLES

In the congested roads, apart from petrol, when we run our vehicle, we have to clean our air filter regularly.

Air filter prevents dust from fouling the engine.

- Dust causes rapid wear of engine components like
Cylinder bores wear out 45 times faster
in engines without air-cleaners.
- when you drive your vehicle at 45 km per hour instead of 65 km per hour, you can save up to 20 per cent.

Energy conservation is short cut to generate Power

- Our Beloved Past President Dr. Abdul Kalam says : -
- The cost of generation of 1 MW power is Many Crores Rupees and takes longer months and years to generate.
cost of 1 MW power conservation is < than Rs. 1 Crore.
- If Conservation done in the morning , same evening we are reaping the rewards of our conservation efforts.

Govt. gives subsidy to us on Electricity, LPG etc.
It is our moral duty to conserve the rationed commodity

Thank you

- S.ASHOK, BEE certified Energy Auditor /
- Coimbatore / Please Call - 94437 20220

Please visit :- www.energymeasuretosave.com

- we take pride on saving Electricity, LPG in house.
 - Conservation is a Habit and begins at Home only.
 - *As Conservation is all about*
- our collective responsibility for better tomorrow.*