

# Phantom Load

While you think you are conserving energy by turning off lights and appliances, many of the common electrical items today are actually on "standby" mode. This is a design feature to provide us the convenience of time - this convenience, however, costs us money because they continue to use electricity even when we are not using them. This mysterious draw of electricity is known as a "phantom electrical load" or "vampire load".

A phantom load is an electrical device that is operating 24 hours a day, 365 days a year, even if you think the device is turned off. These are the glowing red lights you see at night, reminder lights that your appliances are using electricity even when you think they are turned off. They have hidden energy cost that most people are never even aware of.



phantom load = 2-10 watts  
6-10% of your appliance consumption

In the individual sense, these phantom loads are small, but in the collective sense, we're actually wasting enormous amounts of electricity.

### The following types of devices consume standby power:

- Transformers for voltage conversion
- Devices with "instant-on" functions that respond immediately to user action without warm-up delay
- Electronic and electrical devices in standby mode that can be activated by a remote control, e.g. some air-conditioners, audio-visual equipment such as a television receiver
- Electronic and electrical devices that can carry out some functions even when switched off, e.g. with an electrically powered timer
- Most modern computers consume standby power allowing them to be woken remotely (by Wake on Lan, etc.) or at a specified time. These functions are always enabled even if not needed
- Cordless telephones and answering machines
- Transformer-powered doorbells
- Programmable thermostats
- Motion sensors, light sensors, built-in timers and automatic sprinklers



### Energy Consumption - Standby Mode

Appliance	Watts	Hours/Day	Hours/Month	Consumption/Month	
				Pesos/ kWh a day	Pesos/kWh a month
21" CRT TV	8	16	480	3.84	45.35
21" LCD/LED TV	2	16	480	0.96	11.34
Desktop Computer	7.5	12	360	2.70	31.89
Laptop	6.2	12	360	2.23	26.36
Printer	7.6	22	660	5.02	59.24
Cordless Phone	2.5	16	480	1.20	14.17
Cable TV	10	16	480	4.80	56.69
Microwave Oven	3	23	690	2.07	24.45
				<b>PhP 22.82</b>	<b>PhP 269.48</b>

Based on Rate = P11.81/kWh



**BEAT THE PHANTOM LOAD. UNPLUG APPLIANCES WHEN NOT IN USE.**



Republic of the Philippines  
**DEPARTMENT OF ENERGY**  
(Kagawaran ng Enerhiya)  
www.doe.gov.ph



DOE\_PH    doe\_ph  
www.facebook.com/doe.gov.ph