

# Republic of Korea

## 7. Standby Power 1W Program

Energy is often wasted even in times when the appliances are not in use. The most prominent example is standby power, which consumes valuable energy.

Standby power, dubbed as "Power Vampire," is much greater than it seems. The TV, VCR, audio, DVD player, set-top box, microwave oven, mobile phone battery charger, etc is more often just plugged in even when they are not in use, thus resulting in waste of energy. Just figuring out how many times we use the microwave oven during 24 hours will make clear the loss of energy from standby energy. In case of VCR, standby power takes up to 80% of total electricity consumption.

### < Types of Standby Power >

Category	Concept	Power Status	Machinery	Remarks
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No Load	Power consumed while appliance is plugged in	-	Mobile phone battery chargers, DC power supply	<b>Main Targets of 1W Program</b>
Off	Power consumed after appliance is turned off using the "Power" Button (0~ 3W)	Turn-Off	TVs, videos, audios, DVD players, microwave ovens, PC monitors, printers, photocopiers	
Passive Standby	Power consumed after appliance is turned off using the remote control. Korean energy saving label standards are on the 3W level	Turn-Off	TVs, videos, audios, DVD players	
Active Standby	Digital equipment connected by a network uses 20-30W of standby power as they are not turned off even after the power button has been pressed (The consumer assumes they are turned off)	Turn-Off	Digital TVs, set top boxes, home network appliances	Expected to emerge as a large issue in standby power
Sleep	Power consumed during standby while the equipment is turned on	Turn-On	PC, monitors, printers, facsimiles, photocopiers, scanners, multifunction devices	When in power-saving mode (17" CRT monitor: 85W? 4W)

According to the IEA, 5 euros of social costs is spent for every 1W of standby power. Even now, 300 million units of electrical appliances are wasting energy as standby power, which clearly illustrates the gravity of the standby power issue.

The average standby power used by electrical appliances in Korea is 3.66W, or 306kWh annually per household (11% of household electricity use). This accounts for 1.7% of total national power consumption (4,600GWh), or a waste of 500 billion Korean Won, or 1 atomic power plant in the 1 million kW range in operation for idle appliances.

The Korean government and KEMCO launched the ambitious "Standby Power 1W Program," a long-term national initiative to lower the standby power of electronic appliances sold in Korea to below 1W until 2010 as a fundamental energy saving measure. Standby Korea 2010, a roadmap for cutting standby power will be established by the end of 2005. And the achievement target for each equipment and each stage will be reflected in the master plan taking into consideration the technological level and policy adaptation period of relevant industries. 22 institutes including consumer groups, electronic appliance

manufacturers and policymakers are participating in the "Standby Power 1W Program Implementation Committee," to provide advice on the roadmap.



The regulation of standby power in household appliances is emerging as a new trade barrier as major developed countries like the U.S. and Europe are requiring power saving function as essential part of household appliances. Therefore, the "Standby Power 1W Program" is expected to contribute greatly to improve the competitiveness of Korean industry by the development of energy saving technologies.