Smart/Green Ways To Win The Energy War

在台灣，二氧化碳消耗量是世界平均值的四倍以上。以台灣現有500萬戶住宅估計，每戶要連續種植500萬棵樹木40年，才能平衡住宅對環境生態造成的破壞。根據統計，平均四口的家庭，一年就要花掉上萬元的電費，加上台灣能源99%仰賴進口，進口能源佔GDP10%以上，從政府到民間，都得進行省電大作戰。

2011年起，台灣開始推動「陽光屋頂百萬座」計劃，將太陽能光電系統引進到一般住家的屋頂。

Taiwan’s carbon dioxide consumption exceeds global average by four times.

5 million households in Taiwan each has to plant 5 million trees for consecutive 40 years to offset its damage to the environment.

A four-member family spends more than 330 US Dollars on electricity every year, plus Taiwan imports 99% of its energy resources which accounts for 10% of Taiwan's GDP.

It is crucial for the entire population from the government down to engage in the energy war and be smart and green.

In 2011, Taiwan government kicked off the "Million Solar Rooftops" program, introducing photovoltaic energy systems to the general public.

台灣一般家庭耗電量最大的電器前五名為冷氣、電熱水器、冰箱、個人電腦與開飲機，一年總共消耗掉4500度以上的電，而太陽能板一年可支援三成以上的發電量，以這家科技大廠的產品為例，使用年限長達25年，一般家庭裝設以後大約十年就能回本，帳面上省下高額電費支出，實質上也對地球能源做出無價的貢獻．而這家科技大廠的太陽能板具備防遮蔭電路設計，可以增加系統發電效率最高25%，同時也獲得碳足跡認證以及第二屆綠色典範獎肯定．更重要的是，當所有住家屋頂從鋼筋水泥換上一片片太陽能板，也象徵著政府、產業、與民眾達成綠色共識。

Taiwan’s top five energy-consuming appliances in a household are air conditioner, electric water heater, refrigerator, personal computers and heating water dispenser, guzzling more than 4500 kWh of electricity each year.

Solar panels installed can provide 30% of required energy and can last 25 years.

After installation, a household can write off the initial investment within ten years, saving great amount of electricity expenses, and also contributing to preserving the priceless energy resources of the earth.

This solar panel comes with a shade-proof circuit design, increasing energy efficiency by 25%, endorsed with carbon footprint certification and won The Second Green Classics Award in Taiwan.

The island wide rooftop transformation from concrete to solar panels is underway.

It is hoped to create a model for all governments, industrial sectors and people to note.

省電大作戰，除了開源也要節流。有句廣告詞說得好：如果你想要做一件事來拯救地球，換LED燈泡是最容易的選擇。LED省電燈泡一年可省下500磅的二氧化碳，且比傳統燈泡省電3倍，近年來廠商讓LED省電燈泡更進化，利用智慧型晶片的創新技術，讓燈泡不需要調光器就能有四段式調光功能，並且延長了燈泡的壽命，相較於傳統燈泡不僅減少二氧化碳排放和降低汞汙染，也迎合了現代人對居家生活質感的需求．

It takes developing renewable energy as well as cutting down power usage to win the energy war.

As says in a famous Taiwanese lingo: if you could do one thing to save the planet, use LED bulbs!

An LED bulb could reduce 500 pounds of carbon dioxide in one year, three times more energy efficient than traditional energy saving bulbs.

In recent years the manufacturers have upgraded energy saving LED bulbs by embedding innovative smart IC chips, making the bulbs run on 4-step auto dimming without a dimmer, and last longer.

**Efficient LED lighting promises to bring significant energy savings.**

**More and more people in Taiwan are choosing LED bulbs.**

**In 2012, 1.05 million LED bulbs were sold in Taiwan, a 2.7 times increase comparing to the previous year.**

不僅基本照明設備可以省電，家用的閱讀燈也有廠商利用V-CUT濾色片抗眩光技術，解決傳統燈具光源易造成閱讀頁面反光問題，耗電僅8W，卻可輸出高達1000Lux照度，等同傳統光源式燈具21W亮度的照明，確保了閱讀時的亮度以及兼顧環保節能趨勢。

LED doesn’t stop at providing energy efficiency for basic lighting.

Some manufacturers apply V-cut anti-flare filter with flicker-free technology to reading lamps, reducing light reflection for pleasant reading experiences.

Its power usage is only 8W with an amazing 1000 Lux of luminous efficacy, which is equal to 21W of traditional lighting, offering brightness with energy-saving advantage.

電器產品智慧化的後，即可透過手機、平板電腦來控制居家用電、並提升生活便利性。

磁卡輕輕一刷，不僅能打開大門還能立刻啟動電子設施與空調，而牆上能感應室內CO2濃度的調節器及智慧型瓦斯閥，都可連接到電動窗及抽風機，讓生活節能省電之餘也多一分安全與保障。

這些台灣省電大作戰的具體成果，全都體現在台灣綠色產品DEMO屋(Taiwan Green Products Demo House)，欲知更多聰明的綠色選擇，歡迎上網[www.greentrade.org.tw](http://www.greentrade.org.tw)

Intelligence has been integrated into many household appliances.

Smart phones and tablet computers are used as power switchers.

By swiping a magnetic card, doors are open and electronic devices started.

Indoor carbon dioxide sensor or gas valve can be connected to automated windows and air vacuum, taking care of both energy saving and personal safety.

The "Taiwan Green Product Demo House" showcases all these achievements of Taiwan's energy-saving experiences. For more smart green options, please visit  www.greentrade.org.tw

Every day is a green day. Green trade project office reports.