

2016

Full-Aspect Safeguards of Excellent
Services for Health Cares
Kaohsiung Veterans General Hospital
【全方位優質服務的健康守護者】



一、推展特色健康議題-節能減碳 1.Promotion of the Distinguished Health Issues-Carbon

Reduction and Energy Saving

- ◇ 節能減碳為高雄榮總重大推動政策之一，以節約用電、節約用油、節約用水及節約用紙作為推動目標。
- ◇ Carbon reduction and energy saving have been one of the most important policy of the Kaohsiung Veterans General Hospital subject to ongoing promotions. The goals of this policy promote the saving of electricity, fuel, water and paper.

節約用電 saving electricity

- 每年用電量以較前一年減少1%為原則，並依執行成效逐年檢討年度節約用電目標。
- About 1% of monthly reduction for electricity consumption from the record of previous year. Make the annual amendment for the policy goals based on the previous year's performance of electricity saving.

節約用油 saving oil

- 每年用油量以零成長為原則。
- Keep the zero growth for the annual fuel oil consumption as a guideline.

節約用水 saving water

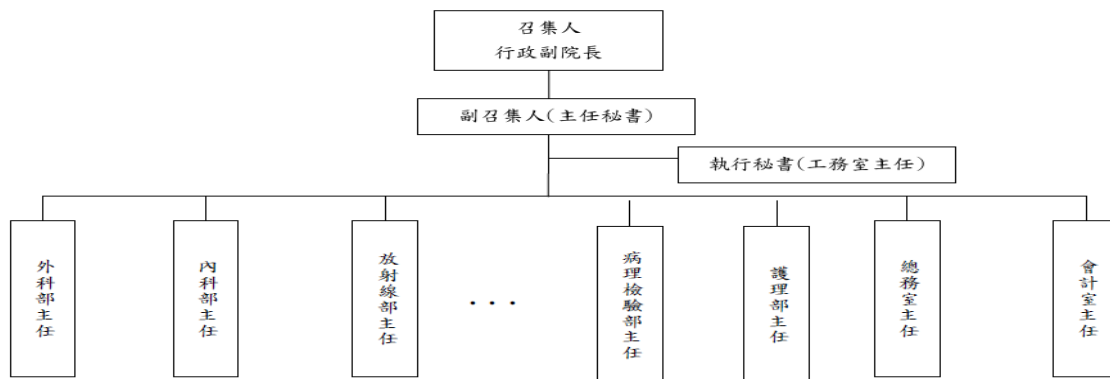
- 每年用水量以較前一年減少2%為原則，並依執行成效逐年檢討年度節約用水目標。
- As a baseline, the reduction of water consumption from the previous year's record is about 2%. Make the annual amendment for the policy goals based on the previous year's performance of water saving.

節約用紙 saving the use of paper

- 每年用紙量以較前一年減少10%為原則，並以「電子公文節能減紙推動方案」之公文線上簽核績效指標達40%為目標，並逐年檢討。
- The annual reduction rate of 10% from the previous year's record for paper usage is adopted. To comply with the policy of "electronic documental system for energy saving and carbon reduction", the 40% of the on-line documents is set as an initial goal subject to the annual amendments.

- ◇ 針對節能減碳，成立推動委員會（四省（省水、省電、省油、省紙）推動委員會），由副院長擔任召集人，各部科主管擔任委員，執行推動目標

Found the Promotion Committee for the four savings of water, electricity, fuel oil and paper usage. The committee chairman is the vice president of the hospital with the departmental heads as the members to promote all the policies.



Organization chart 委員會組織架構圖

Electricity saving

節約用電

★責任區管理

Managerial style with regional Responsibility.

★夏季室內溫度設定在 26-28°C

Summer indoor temperature setting between 26-28°C.

★提前 30 分鐘關閉辦公區空調

Advancing AC shut-down 30 minutes.

★定期濾網與清洗水塔

Regular water flush of filters and water tanks.

★冷風機與照明同步省電

Synchronous electricity saving for Cooling fans and illumination.

★事務機器設定節電模式

Energy saving modes for office machines.

★採節能標章之飲水機

Using the drinking fountains with the energy saving label.

★實驗室設定節能模式

Energy saving mode for laboratories.

★汰換老舊耗能設備

Renew old equipment with high energy consumptions.

★設獨立電錶管制用電

Installation of individual electricity meter for consumption control.

Water saving

節約用水

★採自動感應龍頭

Using auto-flush faucet.

★採省水標章衛浴設備

Using toilet equipment with water saving label.

★水龍頭加省水器

Installation of water economizer on faucet.

★RO 排放水回收再利用

Recycling RO waste water.

★設獨立水錶管制用水

Installation of individual water meter to control water usage.

Fuel oil saving

節約用油

★公務車調派採共搭乘制

Adoption of jointed passengers for official car usage.

★員工公出搭乘大眾運輸系統

Staffs away on business using public transportations.

★減少不必要會議

Diminishment of unnecessary meetings.

★採視訊會議辦理

Adoption of jointed video meetings.

Paper usage saving

節約用紙

★影印紙採配發方式

Quota control for distributing copy paper.

★落實電子公佈欄及電子發文

Implementation of digital board and electronic documentation System.

節能教育訓練及推廣：

Training and Promotion on Energy Saving:



一、 將節約能源列為經常性辦理業務，由各科室利用內部各種集會場合或活動中宣導節約能源觀念及作法，張貼節約能源標語或標示，鼓勵全員參與落實節約能源。

Set the energy saving issues as regular works. By way of promotions for energy saving concepts and strategies during internal meetings and activities, each division encourages full-scale participation of energy saving policies using slogans and posters.

		
<p>各科室宣導活動(照片) Promotion activities of each department.</p>	<p>張貼節約能源標語或標示，鼓勵全員參與落實節約能源 Posting the slogans to promote energy saving participation.</p>	

二、 派員參加經濟部能源局或相關單位辦理之相關訓練。

Select staffs to attend the training programs organized by Bureau of Energy, Ministry of Economic Affairs and the relevant associations for energy saving.

	
<p>能源管理人員訓練合格證書 Training Certificate for managing energy saving</p>	<p>能源管理人員調訓結業證明 Diploma for managing energy saving</p>

三、 每年舉辦行政人員講習，宣導相關節能減碳措施及觀念。

Organize annual lectures for administrative staffs to promote the concepts of energy saving and carbon reduction.



舉辦節能減碳行政人員講習活動(照片)

Lectures for administrative staffs for promoting energy saving and carbon reduction.

四、 不定期邀請學者專家演講節能減碳課程。

Invite the scholars and experts to chair lectures and courses for energy saving and carbon reduction.



綠基會專家現場量測輔導

Specialist from the Green Productivity Foundation to demonstrate practical measurements.

綠基會專家輔導報告書

Guidance report from the Green Productivity Foundation.

◇ 優良事蹟：

Achievements:

在團隊努力下，高雄榮總在 2012 年至 2015 年計投資 5,356 萬元，節省用電 862 萬度，減少 4,491 噸 CO² 排放量，在 2011 及 2012 年榮獲輔導會評核四省專案執行特優單位，2012 及 2016 年榮獲經濟部節約能源績優單位優等獎，節能減碳績效卓著。

With the collaborative team efforts, the Kaohsiung Veteran General Hospital has invested 5356 million dollars from 2012 to 2015 to reduce the consumptions of electricity about 862 million degrees and the emission of carbon dioxide about 4,491 tons. This achievement has led to the premium grade accredited by Veterans Affairs Council for the Four Savings project in 2011 and 2012. In the years of 2012 and 2016, the Kaohsiung Veteran General Hospital has awarded by the Bureau of Energy, Ministry of Economic Affairs, for the outstanding achievements on energy saving and carbon dioxide reduction.



2012 節約能源績優單位優等獎

Premium award for the Four Savings project accredited by Veterans Affairs Council in 2012.



2016 節約能源績優單位優等獎

Premium award for Energy Saving by Bureau of Energy, Ministry of Economic Affairs in 2016.

特色方案一、創新一手術室冰水主機獨立措施

Strategy One: Novelty-independent cooling water equipment for operation theaters

手術室對空調溫度(22±2°C)溼度(55±5%)要求較高,修改管路將手術室空調系統獨立,提高一般空間空調冰水溫度,達到節能成效。

Operation room has the higher standards for temperature of AC (22±2°C) and relative humidity (55±5%). Thus the AC piping system was modified as an independent system with the cooling water temperature raised for ordinary rooms to achieve energy saving goals.



特色方案二、抽熱節能措施

Strategy two: Energy saving by heat

將冰箱集中管理，並於冰箱散熱處增設排熱氣裝置及加設溫度感測器連控排熱氣裝置風機，設定適當溫度自動起停，降低空調用電。

For reducing the AC electricity consumption, all the refrigerators are centralized controlled. On the heat dissipation devices of the refrigerators, the device for discharging the hot gas was installed. With the auto-control unit to auto start and shut-down of these discharging devices based on the temperatures from the sensors, the AC electricity consumption was reduced.



特色方案三、全熱交換器節能措施

Strategy three: Overall heat exchanger for energy saving

高齡醫學大樓全外氣空調系統，利用室內低溫排氣與新鮮外氣熱交換，降低外氣的溫、濕度，減少空調系統的負載。

For the out-door AC system of the high-aged hospital building, the heat exchanges between the in-door low-temperature exhaust and the out-door high-temperature fresh air were utilized to reduce the temperature and humidity of out-door fresh air so that the thermal loads of the AC system were reduced.

