

Water

According to the data from the Water Resources Agency, Ministry of Economic Affairs, toilet water usage is the highest among hotels, hospitals and department stores. The water consumption in hospitals is 742 liters per person per day¹⁶. If the hospitals adopt water-saving equipment in bathrooms and cooling tower, each person will only use 459 liters per day.

Taiwan: Chang Gung Memorial Hospital

The hospital adopted the rainwater collection system, cooling water in equipments, reverse osmosis (RO) water recycling, and water-saving toilets with infrared sensor or foot controls.

For laundry, Chang-Gung Memorial Hospital adopted the tunnel washing machine. Tumbling washers were replaced with tunnel washers, and achieved water conservation rate of over 60%. Water used in laundry is 122,712 tons/year and water recycled is 73,635 tons/year. The automatic loading continuous operation on the new equipment can reduce the use of personnel by 40% compared to the traditional equipment. The cleaning agent can be reduced by 25% when it is

recycled along with the water. The tunnel washer is a continuous washing machine and tumble dry, unlike the traditional type. It could save 18% of electricity. It does not only save lots of water, but also value-adding by using less personnel, detergents and electricity.



Chang-Gung Memorial Hospital- Tunnel washers

Taiwan: Buddhist Dalin Tzu Chi General Hospital

The hospital used water saving devices such as electronic sensor water taps, dual flush toilets, and reduce water pressure as well as adjust the volume of flow on each tap to reduce consumption. Water permeable bricks, rainwater reclamation system and greywater recycle system are installed to recycle the used water and conserve the precious natural resource. The amount of water recycled per year was 23.7% of total water used in the hospital, which is equivalent of 88,800 tons and saves NT\$ 840,000 a year.

Singapore: Alexandra Health Cluster

The lush greenery in and around the hospital is watered with water channeled from the Yishin pond. The water is channeled to the hospital's irrigation systems and processed before its use for landscaping needs. When it rains, sensors will regulate this water source to prevent wastage.



Alexandra Health Cluster- Yishin pond



Alexandra Health Cluster- Water from the adjacent Yishun pond is used to irrigate the gardens.

Education

The environmental protection education can teach people how to internalize the concept of recycle in our lives and reduce the damage to nature. In hospitals, it's necessary to equip the staff with environmental protection information.

Taiwan: Chang Gung Memorial Hospital

In the hospital, it's difficult to have education on environment protection because of massive crowd of patients and visitors. Furthermore, the healthcare professionals consist of the majority of the staff but they do not have the scientific knowledge and lack understanding in energy saving, therefore the results are futile. Chang-Gung Memorial Hospital undertook the following projects:

➤ Regular administration training:

1. Engineers plan and design the training courses with example of best practices and experience sharing.
2. Attend professional energy-saving lectures on learning new technology and skills.
3. Hold energy saving promotional activities to tell the staff the importance of energy use and its standardized operation procedures.