

Report on Energy Saving Programme for the Head Office Hong Kong General Chamber of Commerce

Background

In November 2005, the Chamber and the Hong Kong Business Coalition on the Environment officially launched the Project CLEAN AIR to engage the government, business sector and the community into a collective clean air effort. Besides encouraging businesses to sign a Clean Air Charter, the Chamber also developed “7-7-7 Care-for-Air” Guideline for the general public to take immediate, practical steps to contribute to improving air quality at home, at work and while travelling.

To implement 7-7-7 Guidelines we advocated, the Chamber had established an Environmental Group to explore ways to reduce energy consumption in the head office.

Sources of Power Consumption

The Chamber is a services organization without producing direct emissions from industrial and vehicle operations. Many sources of power consumption paid by HKGCC head office, which could indirectly result in air emissions from power plants, include:

- Lighting system
- Boiler
- Office equipment

Air conditioning system is also a major source of power consumption, but it is not reflected in the electricity bills. The supply of air conditioning is centrally controlled by the management office of the building.

Initial Measures Taken by the Administration

The energy saving programme was started off in the first quarter of 2006 by:

- Replacing lighting devices by 296 fluorescent tubes and lamps in a total office area of 10,250 sq ft.
- Replacing hot water boiler of 2.85kW by a new one of 2.75kW.

Office-wide Energy Saving Programme

In April 2006, the Environmental Group developed and introduced a series of energy reduction measures, and advised all staff to follow a set of guidelines on a phased basis, as follows:

General Guidelines

1. Activate “sleep” mode of photocopiers and printers during office hours.
2. Minimize photocopying to reduce ground level ozone emissions, make use of double-sided copying and multi-pages on single page copying.
3. Minimize printing and faxing, make good use of email and e-fax.
4. Switch off electricity of your working area when leaving the office, including air conditioning, ventilation system and lights.
5. Make conference calls or use other electronic media to reduce travelling for business meetings.

6. Plan your travel or carpool to avoid single-passenger car trips.
7. Encourage contractors to use products with zero or low VOCs for renovations.

Starting from 2 May 2006 - reduce electricity usage by computers

8. All office staff is requested to switch off their computers completely after work, if they are not in use after office hours.
9. "Power saving" function is activated in all office computers.

Starting from 8 May 2006 - reduce unnecessary electricity

10. Reduce unnecessary electricity usage in pantry and non-working area. For example:
 - switch on standby mode for microwave only at 8:30-9:00 am and 12:00-12:30 pm.
 - switch on glass-cleaning water-heater only when necessary.
 - reduce unnecessary lighting in the filing room, server room and other areas where require long-time lighting is not required.

Starting from 15 May 2006 - reduce unnecessary electricity after office hour

11. Switch off typewriter and other electricity if you are the last one to use.
12. Remain one printer in operation at each office zone after 6:00 pm.
13. Switch off two fax machines and remain one in operation after 6:00 pm.
14. Switch off all printers and photocopiers if you are the last one to leave the office.

Analysis and Results

The Chamber commissioned the Business Environment Council as the environment consultant to conduct energy audit for May-July 2006. It was suggested that "electricity consumed per number of working hour" should be used as a base to reflect the benefit of implementing energy saving programme. The following tables summaries the findings based on the comparison of same periods in 2005 and 2006:

Period	office working hours + OT	Elec. Used	Elec / hr.
May – Jul 05	804	34941	43.5
May – Jul 06	741	28905	39.0
	-7.8%	-17.3%	-10.3%

The reduction in electricity is verified to be 10.3% reduction in average, audited by the environmental consultant.

Although working hours from Aug – Nov 05 and 06 are not known, the consultant assumed that the average working hours would be the same as those from May – Jul. In view of these, the following table summarized the electricity savings:

Period	office working hours + OT	Elec. Used	Elec / hr.
Aug - Nov 05	1072	45502	42.4
Aug - Nov 06	988	38558	39.0
	-7.8%	-15.3%	-8%

Recommendations

The Energy Saving Programme of the Chamber's Head Office had resulted in a rough estimation of 10.3% energy saving in average. To enhance the programme, the Environmental Consultant suggested the Chamber to explore the feasibility of further improvement in the following areas:

- Modifications of excessive light fittings.
- Revision the lighting circuit.
- Replacement and scheduling the use of electric boiler in HKGCC's office.
- Executives to switch off lighting of their offices during lunch hours and outside meetings.
- Influence to HKGCC's supplier chain.
- Considering the measurement and improvement in staff transportation-linked emissions.