

Environmental Report 2005

Hong Kong Police Force

Introduction

The Hong Kong Police Force operates within the well-established constabulary concept of preserving life and property, preventing and detecting crime and maintaining law and order, with a strong emphasis on enlisting community support. Apart from the Force Headquarters and specialist divisions or units, Police services are organised on a geographical basis. There are six Regions, each divided into Districts which are sub-divided into Divisions. Police premises span across the territory with some offices located in commercial buildings or in Government's joint-user buildings.

Environmental Policy

2. Our mission is to enhance Force members' environmental awareness through education and publicity, and to encourage their participation in conserving the environment; to work with relevant organisations to promote environmental management in the Force; to develop and maintain a management system to improve the environmental quality of its activities; and to comply with relevant legislations and codes of practice.

Commitment and Management

3. The Steering Committee on Green Management, chaired by the Director of Finance, Administration and Planning, comprises both civilian and disciplined representatives from various Major Formations at a senior level, and serves as the focal point for directing energy and environmental management issues in the Force. The Steering Committee closely monitors the consumption of papers, envelopes, electricity, gas, fuel and waste paper collection. There are also Regional Green Management Committees in 6 Regions/Formation, namely HK Island, Kowloon East, Kowloon West, NT South, Police College and Police Tactical Unit. All these Committees are under the stewardship of leading commanders to strengthen green efforts in the Force.

4. To reinforce green management efforts in the Force, the Green Manager Scheme has been modified to provide a three-tier green manager structure for promoting and monitoring green measures in each level:

- Green Manager at Major Formation level
 - to serve as the leader for his/her Major Formation on all green management related issues, including the implementation of green initiatives and monitoring of resource consumption.

- Assistant Green Manager at Formation level
 - to develop and implement green measures in the various units/bureaux/divisions in the Formation.
- Green Warden at office level
 - to conduct random checks on office premises with a view to reminding colleagues to comply with the housekeeping green measures, e.g. switching off unnecessary lighting, putting computer/office equipment to the energy- saving mode, and using both sides of the paper.

Goals

5. The Force has set targets for Formations to follow on electricity, paper and envelope in recent years. Having regard to the substantial achievements in the past two years, relatively modest saving targets were set for 2005/06, including the reduction of electricity consumption by 4% for the new Police Headquarters complex, and the reduction of paper consumption by 5% for the whole department. For envelope consumption and electricity usage outside Police Headquarters, Formations were to continue with their good efforts and at least to maintain the same level of consumption as that for 2004/05.

Overall Performance in Resource Consumption

6. The environmental performances of the Force in terms of paper, envelope, electricity, gas, fuel and waste paper collection are illustrated in Figures 1-6. It is particularly encouraging to note a double-digit decrease in fuel consumption for the Marine fleet (-17%) in 2005. The rise in electricity and gas consumption was mainly attributed to the increased gross floor area and provision of new facilities following the relocation of the Police Headquarters and the Central Division in late 2004, as well as the New Territories South Regional Headquarters in late 2005.

Performance in 2005

1. Waste Minimisation

7. The Force had sustained efforts in minimising paper consumption, and a further cut in the allocation of papers by 5% was effected in October 2005. Measures such as communication by e-mail, photocopying on both sides of paper, using recycled papers and reusing of envelopes had become common practice of staff at all levels. A new fax receiving system with screening function was installed at the Police Headquarters such that unwanted fax messages were weeded out at source.

8. Reference materials or information were disseminated by e-mail and e-bulletin boards in place of hard copies. For example, Hong Kong Island

Region and Traffic Kowloon West set up electronic notice boards which made it possible for officers to read memos, notices and minutes of meetings at their own terminals, hence saving the amount of paper used. Formations also reviewed the distribution list of documents to eliminate unnecessary distribution copies, and replaced paper-based returns by emails whenever possible. The adoption of "Paperless Conference" at both Headquarters and regional levels were also encouraged.

9. Staff were requested to use the E-phone Message function in the Lotus Notes Platform instead of writing the messages on paper. Likewise, they were asked to print less paper through manipulating the layout of printouts for record-keeping purposes. The way to use the functions for printing multiple pages on one sheet were illustrated step by step in the green tips widely circulated among the staff.

10. Other waste-minimising measures adopted include :-

- the re-use of old floppy discs through re-formatting
- the purchase of rechargeable batteries
- the use of environmentally friendly plain paper fax machines
- the use of electronic greeting cards to replace the use of paper cards
- the use of recycled paper

II. Energy Conservation

11 Energy saving stickers were displayed at conspicuous places within the Force to enhance staff awareness on energy conservation. Unnecessary energy consumption was cut as far as possible by a series of housekeeping measures, such as reducing water temperature for gas boilers, shortening the operation hours of lifts, and routine checking to switch off lights/air conditioners outside office hours. Staff were reminded to switch off lights and air-conditioners when they were not in the office, and to turn off all electrical equipment when not in use. In some Formations, such as NTN Region, air-conditioning was not provided in lift lobbies and corridors during non-office hours.

12. The Force adopted the recommendation of the Environment, Transport & Works Bureau by setting the ambient office temperature to 25.5 in summer months. To complement this green initiative, the Force had relaxed the dress code for male officers performing indoor office duties in plainclothes. Staff might dispense with the wearing of a tie, except when they were required to officially meet with members of the public or participate at formal occasions.

13. Other than energy saving in normal office setting, the Force also paid attention to the changing rooms in the police stations. Timer-switches for air-conditioning units as well as zonal lighting switches were installed in the changing rooms to facilitate turning off of unnecessary air-conditioning and lighting to cater for the shift patterns of the staff. In some premises, such as Sau Mau Ping District, air-conditioning would only be provided at designated hours subject to a maximum of six hours, and in the winter season, half of the air-conditioners in the changing rooms in Tsuen Wan District would be turned off and locked.

14. Fuel consumption is another focus in green management in the Force. For police land transport, green driving practices were widely promoted and addressed in all driving training programmes. The Force had been engaged in long-term trial of an environmentally friendly hybrid vehicles in the lighter classes of non-operational police vehicles. Specific measures adopted to contain fuel consumption included : -

- use of more fuel efficient types of vehicles
- continued exploration of cleaner fuel types
- close monitoring on vehicle maintenance programme and replacement of less fuel efficient old vehicles
- pursuit of enhanced hydrocarbon recovery system

15. Energy saving measures to reduce fuel consumption had similarly been taken for the Marine fleet. To identify optimum engine revolution at which fuel consumption was most economical, the Marine Region conducted a study on the engine power curves of police launches. Four stroke petrol outboard engines supplied by different manufactures were put on trial to capitalize on this technology in new crafts. Changes in shipboard operational behaviour were also introduced with the aim of power saving.

III. Environmental Awareness Among Staff

16. To promote environmental awareness amongst staff, the Force had publicised useful tips on green management in internal publications as well as via the intranet. 15 “Green Corners” were set up in Police premises to provide forums for sharing of views and good practices on green management. Suggestion boxes were put in place to encourage green ideas from the staff. Some premises organised promotional activities to foster staff participation.

17. Green management concepts were also incorporated into the police training programmes and activities. Police Tactical Unit had even designed its own promotional stickers to remind the staff to switch off lighting and save energy. Every evening at 1700 and 1800 hours, a message would be

broadcasted to remind colleagues to switch off the lights before they left.

18. Apart from instilling positive values and calling on young people to help Police fight crime, the Force also hope, through the Junior Police Call (JPC), to promote their awareness of environmental protection, so that these potential leaders of our society would be well equipped with knowledge on environmental protection. The “Hang Seng Bank- Junior Police Call Environmental Detectives” competition, comprising web games, environmental case studies and report presentations, was launched by the Force in April 2005 with sponsorship from the Hang Seng Bank, and co-organised by the World Wild Fund for Nature Hong Kong with support of some private companies as well. Well received by primary and secondary students as well as JPC members, the competition attracted 100,000 entries for the web games, and over 1,200 environmental reports submitted by over 7,000 participants. Twelve young winners were awarded with scholarships and a five-day visit to Thailand where they visited conservation areas facilities.

IV. Recycling Programmes

19. The Force had all along adhered to the 3-R ‘Reduce, Re-use, Recycle’ principles. Other than energy saving housekeeping practices, we had put in place the following recycling programmes :-

Waste Paper

20. The Force engaged the service of two contractors centrally arranged by the Government Logistics Department for collecting paper wastes. Conspicuously-labeled 'recycle green boxes' were placed in Formations to collect waste paper for recycling through those two companies. In 2005, the waste paper collected was over 230,000 kg.

Can and Plastic Bottle

21. Three-coloured waste separation bins for collection of waste papers, aluminium cans and plastic bottles were widely placed in Police premises. There was also an aluminium can and plastic bottle crushing machine at the Police College to instil an environmentally responsible culture amongst the staff and trainees.

CD/VCD/DVD

22. The initiative of recycling confiscated CD/VCD/DVD was first introduced in Mongkok Police District in 2002 and further extended to Crime Kowloon West in 2004. Arrangements had been made with a recycling company to collect the seized discs for recycling. The company would first destroy the discs in piles by drilling holes and breaking them into smaller granules before transporting them to the Mainland for recycling. In the

Kowloon West Region, 643,000 pieces of confiscated CD/VCD/DVD were collected by contractors for recycling in 2004/05. In office environment where the quantity of unwanted CD/VCD/DVD was small, a central collection point was put in place for recycling such discs.

Others

23. The Force engaged the service of a commercial contractor for collecting empty cartridges, scrap lead and empty shell. In addition, four IT consumables vendors were engaged for collecting used cartridges of specific models.

V. Energy Review on New Police Headquarters Building

24. The new PHQ building was fully occupied in end October 2004. To take care of energy consumption in the new building, a Working Group on Energy Conservation in Arsenal House was set up in late 2004 with representatives from resident formations, Central District, Arch SD and EMSD. An Energy Review Task Force was also formed by Arch SD, focusing on the energy review for the new building. Site visits were conducted to selected areas which were most representative of the building's situations. Apart from observing the energy usage pattern and house keeping practices, spot measurements of lighting level and indoor thermal conditions were taken during the site visits. After a detailed analysis of the energy data collected, the Task Force recommended a number of Energy Management Opportunities (EMO) as summarized at the Annex. These EMOs had been put to the PHQ Building Management Committee for endorsement and implementation.

25. Full implementation of the EMOs on the new PHQ building took place in April 2005, and Arch SD continued to collect energy data on a monthly basis for the purpose of monitoring the energy consumption profile. An interim assessment by Arch SD covering the period November 2004 to November 2005 revealed that the overall electricity consumption had been significantly reduced by 19.5% from 2,505,000 kwh in November 2004 to 2,017,000 kwh in November 2005. This corresponded to a monthly saving of electricity cost of \$39,000 (14.5%) when comparing the month of November 2004 with that of November 2005, despite the fact that 6-7% rise in electricity tariff rate took effect from 1 January 2005. Since the implementation of the EMOs, substantial savings were registered for the basement carpark ventilation system (70%), lift & escalator (23%) and office lighting and equipment (22%).

26. In order to obtain the year-round energy consumption data since the implementation of the EMOs in April 2005, collection of the energy data would be ongoing till end March 2006. To enable better control of electricity usage by office equipment and lighting, relevant data of the high consumption floors were brought to the Formations' attention whenever upsurges in energy cost occurred. To improve the monitoring mechanism, networking and computerization of the

local energy meters on individual floors were in progress and would be completed in 2005, whereupon the energy data would be automatically downloaded to the central computer for the ease of monitoring. Under the new operation mode, consumption figures by floor would be provided to individual Formations on a regular basis for closer monitoring of the electricity usage.

VI. New Initiatives in the Police Buildings

27. Inclusion of energy-saving devices was one of the core elements in the planning and design of the new police buildings. The new New Territories South Regional Headquarters and Operational Base Complex came into operation in October 2005. The design of the building, e.g. the purposely configured tower block and green devices in the building services system, helps to maximize energy efficiency and conservation. There are also installations in the building services system to enable a critical and sectorial monitoring of the power consumption for air-conditioning, lifts and lighting etc. in the building.

28. The Marine Outer Water District and Marine Division Operational Base Complex, scheduled for completion in March 2006, will similarly feature green measures, including:

Architectural Design

- use of carefully designed windows to give the best effect of natural cross ventilation throughout the complex from north-south and west-east directions
- adoption of lofty high ceiling design for main entrance to give the best distribution of air
- use of sun path analysis to assist in orientating features for sun shading devices and skylights
- use of environmentally friendly materials such as recycled plastic landscape furniture and local materials

Building Services System

- provision of programme lighting control system and sensors to optimise lighting level and to switch off unnecessary lighting
- provision of programmable air-conditioning system to monitor temperature distribution in the main building to meet functional use
- use of the heat waste from air-conditioning equipment to

pre-heat water in domestic water main before it enters into hot water heating circuitry

Engagement with Stakeholders

29. The Force works closely with EMSD to identify energy saving opportunities. Up to December 2005, EMSD completed audits on 20 police premises. The recommended Energy Management Opportunities were either implemented or being actively pursued. With the assistance from EMSD, new energy saving devices have been identified to replace the old ones. The old air-cooled chiller units of Caine House in Wanchai will be replaced by new water-cooler chiller units in 2006, with an estimated saving of 20% in total electricity consumption for the building.

30. We are also supportive of the green events organised by other departments or organisations. The Information System Wing joined the “Collection of Tin Mooncake Boxes Campaign” organised by the Friends of the Earth. To support the Community Chest Green Day 2005, staff were also encouraged to take greener form of transport and use less plastic bags. The events were well received by staff.

Focus for Further Action and Improvement

31. The Force will continue to keep up the momentum in the drive to save energy for promotion of a greener working environment. We are developing an E-Green Corner to be launched on the police intranet. Major emphasis in the coming year is to monitor the effectiveness of the energy saving measures in the Police Headquarters complex and to develop potential Energy Management Opportunities for the NT South Regional Headquarters basing on the experience gained in the new Police Headquarters.

Feedback

32. It is intended that the publication of this Environmental Report will serve as a comprehensive and useful guide for promoting a green culture within the Force, our client departments and contractors. If you have any views and suggestions in connection with this Environmental Report, you are welcome to contact us via email at phq-gr@police.gov.hk.

March 2006
Administration Wing
Hong Kong Police Force

Energy Management Opportunities New Police Headquarters, Phase 3

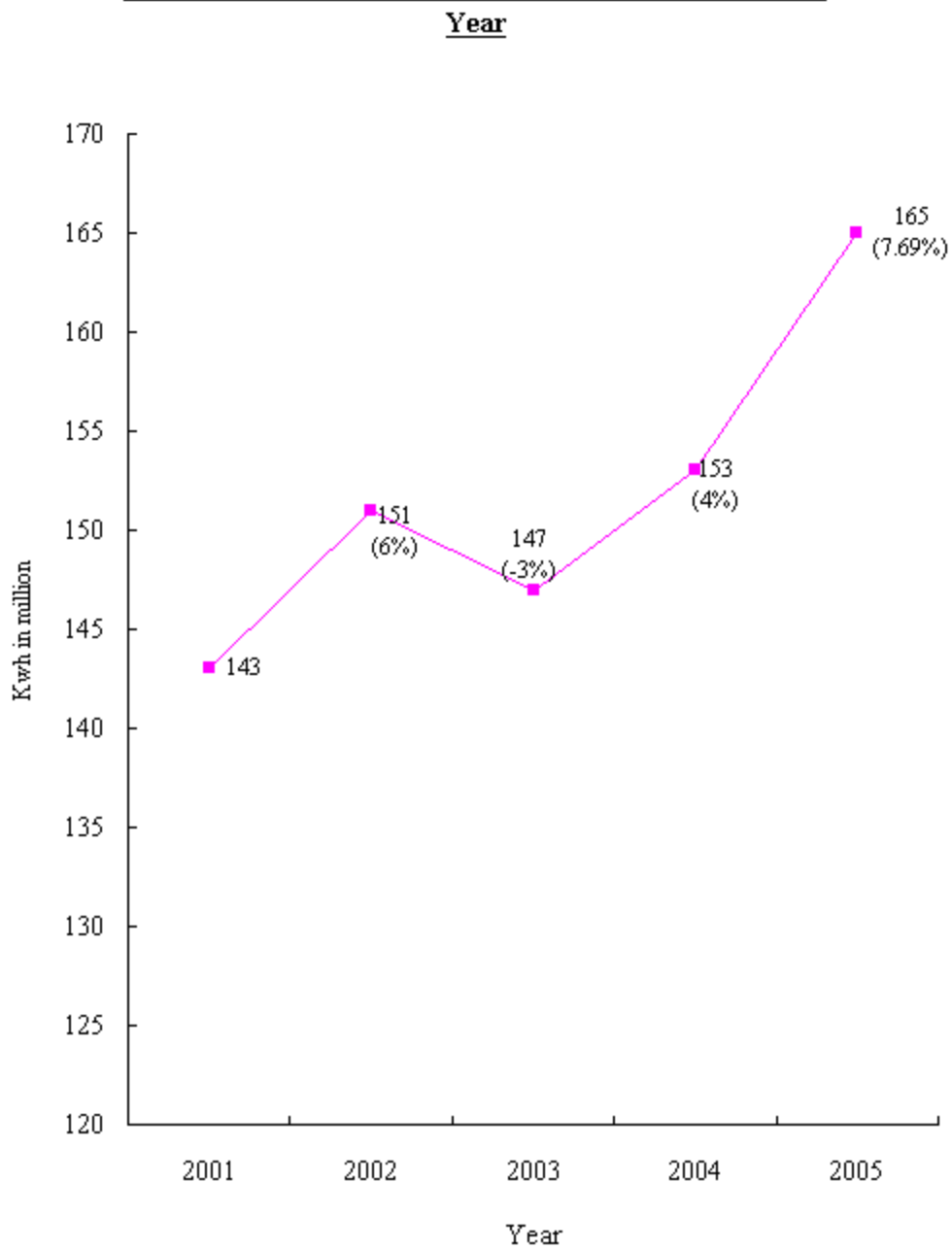
<u>Item</u>	<u>Energy Management Opportunities</u>
1.	Electrical Installation – Lighting Installation
a.	<p><u>Lighting for general office area for all floors</u></p> <ol style="list-style-type: none"> 1. Earlier switch-off of lighting after office hours at 1830, 2100 and 2400 hours (Weekday); and 1300, 1830, 2100, 2400 hours (Weekend); 2. Manual switch-off of the perimeter lighting along the curtain wall should the daylight penetration is sufficient.
b.	<p><u>Lighting for internal public area for all floors (including pantry, toilet, corridor inside core and lift lobbies)</u></p> <p>Earlier switch-off of public lighting at 2000 hours (Weekdays); and 1400 hours (Weekend)</p>
c.	<p><u>Carpark lighting</u></p> <ol style="list-style-type: none"> 1. Only essential lighting for podium carpark where daylight is available is switched on from 0700 to 1800 hours; 2. Switching off more lighting (leaving with essential light only) at night time from 2200 to 0700 hours when the carpark usage is low.
d.	<p><u>Restaurant on 5/F & 6/F</u></p> <ol style="list-style-type: none"> 1. Switch off the lighting at dining area after business hours (at 2130 hours for 5/F and 2330 for 6/F); 2. Consideration for switching off lighting at part of restaurant area during off-peak hours.
e.	<p><u>3/F Main lobby</u></p> <p>Switch off ½ of the lobby lighting from 2000 hours to 0700 hours (weekdays); after office hours (Saturday) and throughout the day (Sunday and public holidays)</p>
f.	<p><u>Escalator lobby</u></p> <p>Switch on only the general lighting whilst the decorative lighting to be switched on only for functional events to be held.</p>
g.	<p><u>External lighting outside Report room of Central Station (along Arsenal Street)</u></p> <p>Lighting to be turned off from 0700 to 1800 hours.</p>
h.	<p><u>External lighting at ceremonial ground</u></p> <p>Earlier switch-off of external down light at 0700 hours. As for the decorative floor light and flagpole light, these will only be switched on in festive seasons.</p>

i.	<u>Central core corridor lighting on office floors</u> Switch off 1/4 of the corridor lighting during office hours
j.	<u>Near exit</u> Affix “Save Energy” stickers near lighting switch and exit as a reminder for staff to turn off unnecessary air-conditioning, lighting and office equipment where appropriate
2.	Air Conditioning and Mechanical Ventilation Installation
a.	Rescheduling of A/C operation schedule for public areas, such as typical floor lift lobby and escalator lobby from 24-hours operation to : (i) Public area of non-office floors : 0700 – 1900 hours (Weekday) 0700 – 1300 hours (Saturday); Closed on Sunday and public holidays (ii) Lift lobby on office floors: Follow the office A/C operating schedule
b.	<u>8/F auditorium and 10/F multi-purpose hall</u> 1. Put A/C into operation one hour before and till the end of scheduled booking time; 2. Switch off A/C & lighting for common area in 8/F and 10/F when the venues are not in use.
c.	<u>A/C Operating Hours for restaurants on 5/F and 6/F</u> Put A/C into operation one hour before and till the end of business hours with the revised schedule:- 0530 to 2130 hours daily (5/F); 1030 to 2330 hours daily (6/F)
d.	<u>The indoor air temperature for office areas and public circulation during summer period</u> The room temperature to be adjusted to 25.5 deg. C
e.	<u>Temperature set point for A/C in CER</u> Temperature set point to be adjusted to 24 deg. C
f.	<u>Basement carpark ventilation</u> Re-scheduling of ventilation fan operation as below: <u>Office hours (peak hours: 0800-1000 hrs & 1700-1900 hrs)</u> Full operation of ventilation fans; <u>Office hours (non-peak hours: 1000-1700 hours)</u> 1/2 of ventilation fans in operation; <u>Non-office hour (1900-0800 hours)</u> 1/4 of ventilation fans in operation

g.	<u>Increase in efficiency of chiller plant</u> Increase of 1 deg. C for chilled water supply temperature so as to increase the operating efficiency of the chiller units
h.	<u>Chiller plant operation sequence</u> Operation of chiller plants to achieve further saving on energy charges by summation metering tariff scheme.
i.	<u>Temperature set point for A/C in BS plant room during summer period</u> Temperature set point to be adjusted to 26 – 28 deg. C
j.	<u>A/C Operating Arrangement for restaurants on 5/F and 6/F</u> Switching off part of the A/C during off-peak hours
k.	<u>Division of A/C areas for office floors</u> Each office floor is divided into 4 independent A/C supply areas so as to increase A/C supply flexibility
3.	Lift and Escalator Installation
a.	<u>Operating schedule for lift installation</u> Shut down two lifts per zone after office hours from 1830 to 0700 hours (Weekdays); and from 1400 (Sat) to 0700 (1st working day after holiday); and whole day on Sunday and public holidays.
b.	<u>Lift car lighting and ventilation fan</u> Turn off the lift car lighting and ventilation fan when the lift is not in use.
c.	<u>Operating schedule for escalator installation</u> Shut down the escalators after office hours at 1830 to 0700 hours (Weekdays); and from 1400 (Sat) to 0700 (1st working day after holiday); and whole day on Sunday and public holidays.
d.	<u>Auto start-stop / 2-speed control for Escalators</u> Auto start-stop / 2-speed control functions are provided for all 24 nos. of escalators.
4.	Others
a.	<u>Additional sun blind from 8/F – 41/F</u> Additional sun blinds to the West facing curtain wall are added from 8/F to 41/F

圖1：2001-2005年電力耗用量

Figure 1 : Electricity Consumption 2001-2005 Calendar



* 備註： 2005 年電力耗用量上升，是由於在 2004 年年底遷移警察總部及中區分區，以及在 2005 年年底遷移新界南總區總部所致。

* Remarks : The rise in 2005 was due to the relocation of the PHQ and Central Division in late 2004, as well as NTS Regional HQ in late 2005.

圖2：2001-2005年紙張耗用量

Figure 2 : Paper Consumption 2001-2005 Calendar Year

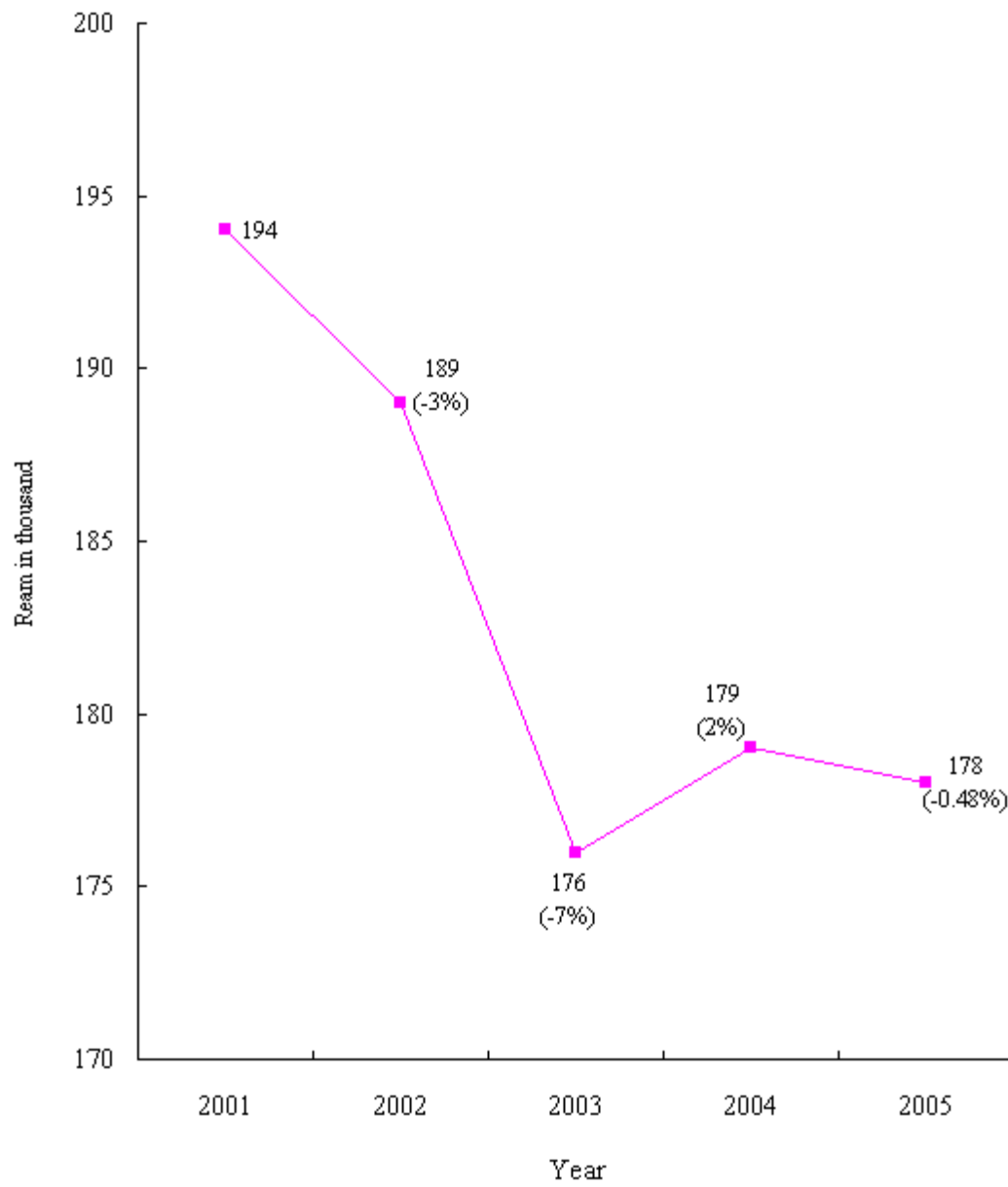


圖3：2001-2005年信封耗用量

Figure 3 : Envelope Consumption 2001-2005 Calendar Year

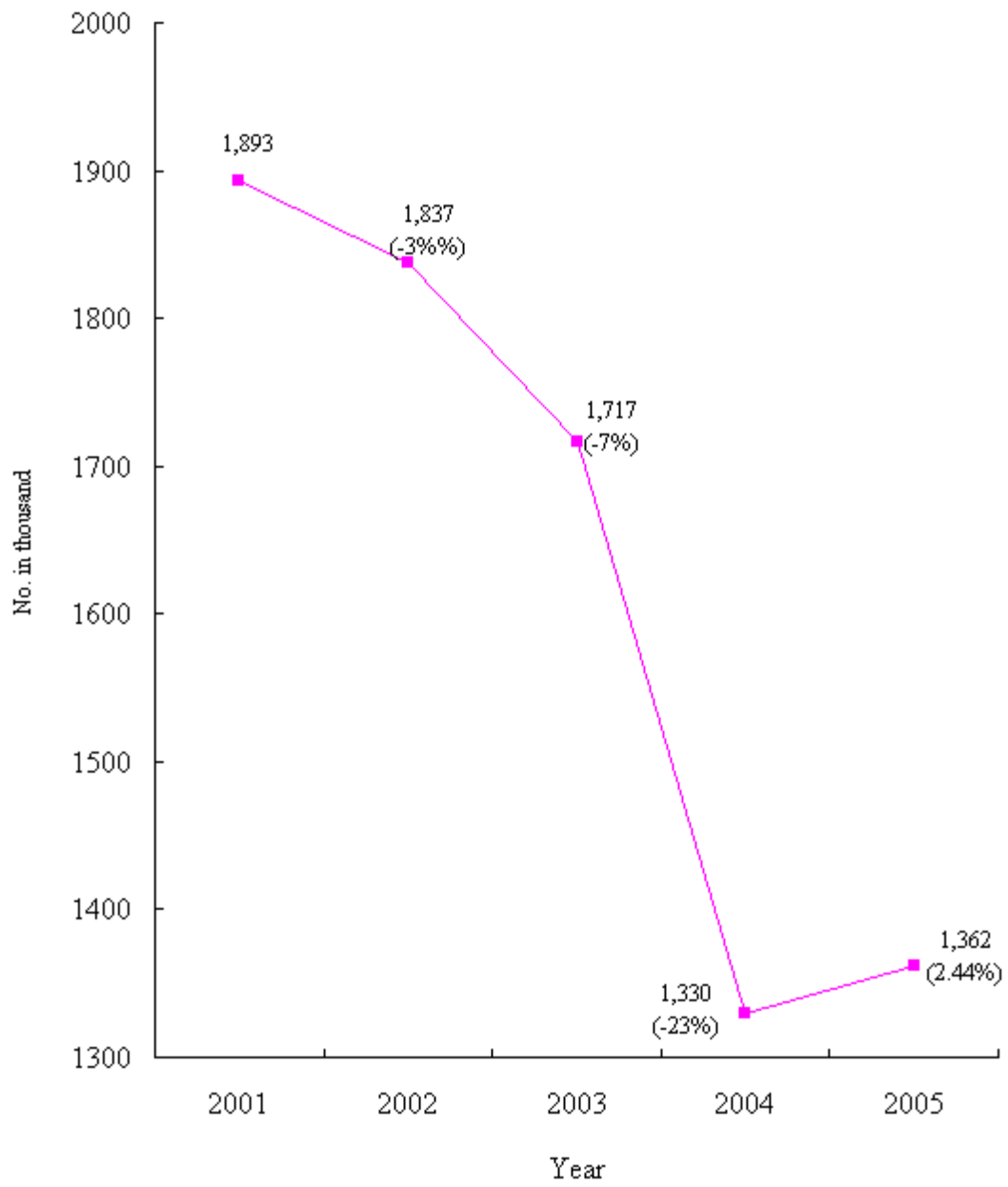


圖4：2001-2005年警隊車輛及水警船隊的汽油及油渣耗用量

Figure 4 : Petrol/Diesel Consumption by Police Vehicle and Marine Fleet 2001-2005 Calendar Year

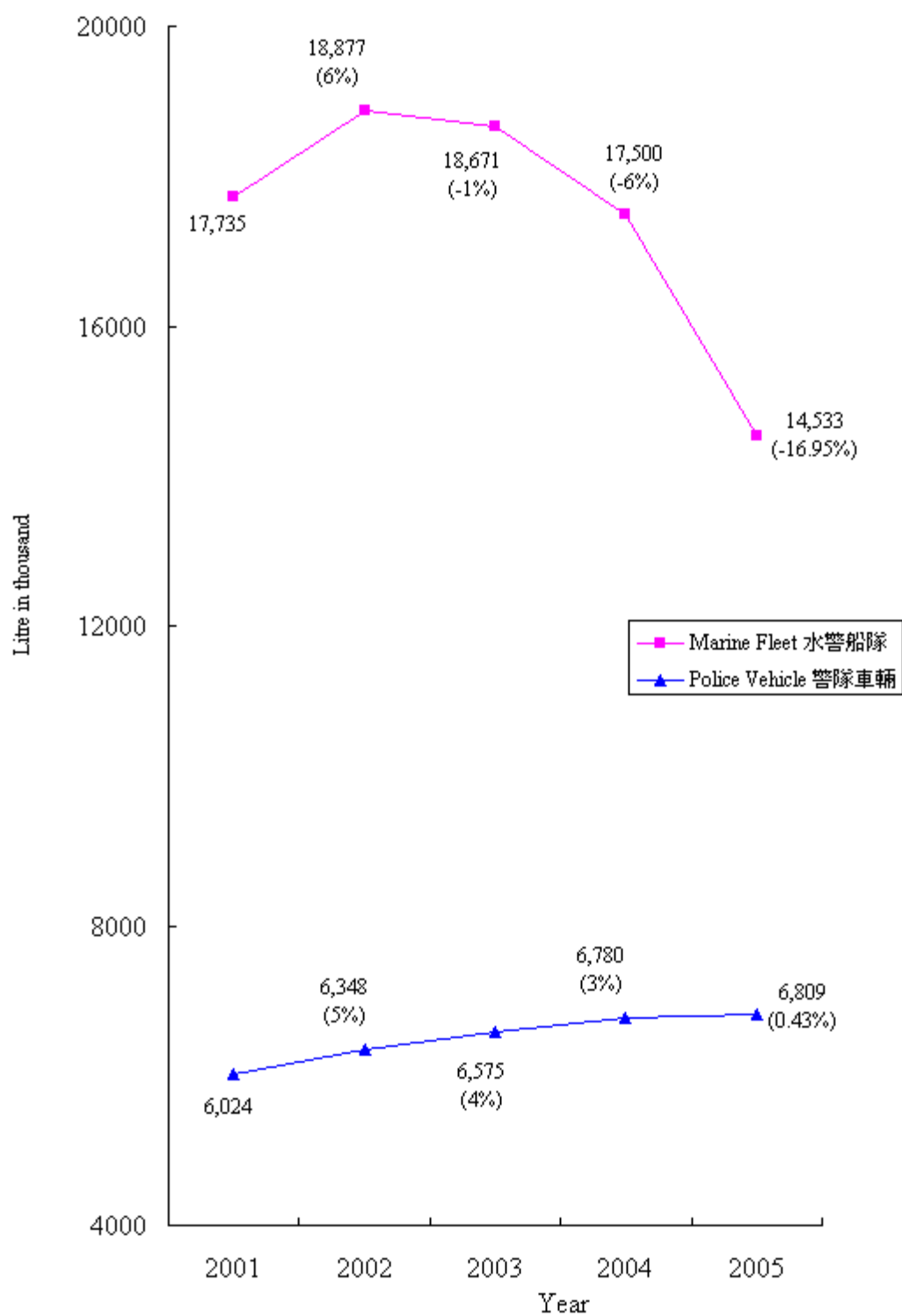
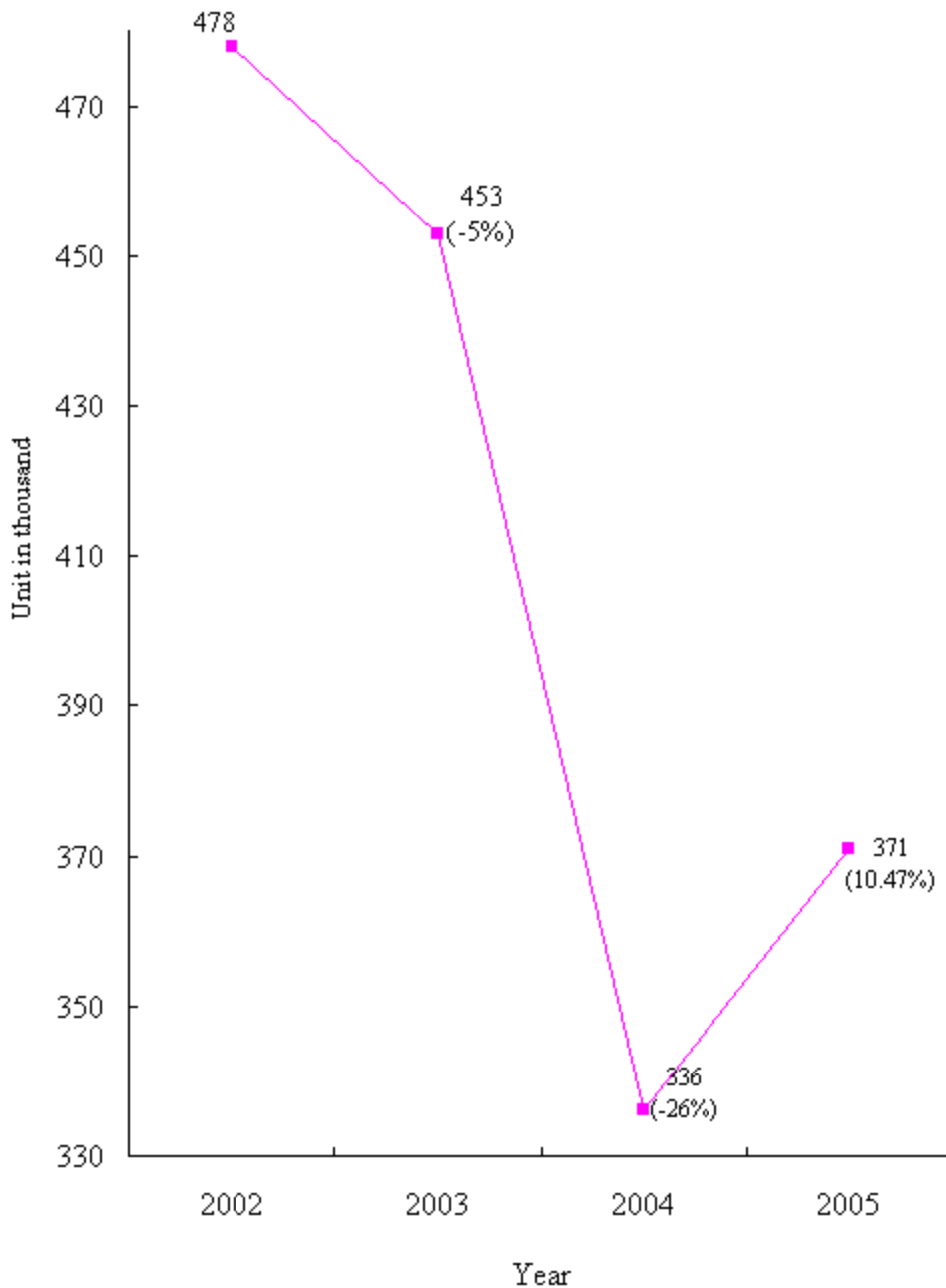


圖5：2002-2005年燃氣耗用量（不包括飯堂）
Figure 5 : Gas Consumption (excluding Canteens)
2002-2005 Calendar Year



- *備註：
- (a) 由於在 2002 年才開始監察燃氣的耗用量(不包括飯堂)，因此無法提供 2002 年之前的數據。
 - (b) 2005 年的燃氣耗用量上升，是由於在 2004 年年底遷移警察總部及中區分區，以及在 2005 年年底遷移新界南總區總部所致。

- * Remarks :
- (a) Figures before 2002 are not available as the monitoring on gas consumption (excluding canteens) only started in 2002.
 - (b) The rise in 2005 was due to the relocation of the PHQ and Central Division in late 2004, as well as NTS Regional HQ in late 2005.

圖6：2001-2005年廢紙收集量

Figure 6 : Waste Paper Collection 2001-2005 Calendar Year

