

科技節能易安居
**TECHNOLOGIES
FOR SAFER
GREENER HOMES**

機電工程署規管服務 — 業務概覽
Electrical and Mechanical Services Department
Regulatory Services – An Achievements Overview

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抱負 **Vision**

我們的抱負，是要成為促使香港在機電安全及善用能源方面，都達到世界首要都會水平的政府機構。

Our vision is to be the government agency that makes Hong Kong a top-ranking city in E&M safety and in the utilisation of energy.

使命 **Mission**

我們的使命，是確保機電及能源科技均以安全、可靠、經濟及環保的方式得以善用，並藉此促進社會的安全及提升生活質素。

Our mission is to enhance the safety and the quality of life of our community by ensuring that E&M and energy technologies are harnessed in a safe, reliable, economical and environment-friendly manner.

信念 **Values**

- | | |
|--------|---------------|
| • 專業才能 | • Expertise |
| • 誠信 | • Integrity |
| • 可靠 | • Reliability |
| • 承擔 | • Commitment |

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重要活動

1 游說業主奏效

位於港島東的吉祥大廈沒有聘用物業管理公司，也沒有成立業主立案法團，但我們仍成功游說全部 650 名業主遵照法例規定，為大廈的電力裝置進行檢查和測試。雖然我們用了幾個月時間向個別業主進行家訪和召開會議，但卻能避免進行大量檢控及支付有關法律開支。更重要的是，這個案證明游說亦可較檢控更為有效，而且彰顯各方共同致力保護公眾安全的合作精神。

2 支援弱勢社群

我們審批一款經改良的梯級升降機，於九龍灣一條行人天橋使用。這款為殘疾人士而設的升降機適合在有高度限制的地點安裝，為同類設施的先河。我們現正加強有關的工作守則內容，以便在有高度限制的現有建築物內安裝梯級升降機。這些都是我們的長遠工作，目標是要確保所有人均可安全及方便地使用社區設施。我們又制定了新的設計指引，讓殘疾人士也可享用機動遊戲機。

3 氣體接駁軟喉批准計劃

繼成功推出住宅式氣體用具批准制度（一般稱之為 GU 標誌計劃）後，我們又為氣體接駁軟喉制定類似的預先批准計劃。該計劃於 2005 年 1 月生效，所有氣體接駁軟喉必須先獲本署批准，才可進口本港或在本港供應或出售。獲批准的軟喉會印有批准編號及更換期限。我們亦準備為其他氣體配件制定類似計劃。

1 Prevailing through Persuasion

Despite the absence of a property management company or an incorporated owner, we managed to persuade all 650 owners of Kut Cheong Mansions in Island East to organise the testing of their electrical installations in accordance with the statutory requirements. Although it took months of home visits and lengthy meetings with individual owners, this avoided a huge number of prosecutions and the associated legal expenses. More importantly, this case exemplifies our belief that persuasion can be more effective than prosecution and underscores the power of collaboration in protecting public safety.

2 Support to Minority Groups

An enhanced stair-lift, designed for locations with limited headroom, has been approved for use at a footbridge in Kowloon Bay, setting a precedent for similar designs catering for the disabled. The code of practice is also being enhanced to facilitate the fitting of stair-lifts in existing buildings where headroom is limited. These efforts underline our long-term plan to ensure that everyone in Hong Kong has easy and safe access to community facilities. Furthermore, new design guidelines have been established for the disabled's access to amusement rides.

3 Approval Scheme for Flexible Gas Tubing

Following the successful launch of the approval system for domestic gas appliances, more commonly known as the GU Mark scheme, we have developed a similar pre-market approval scheme for flexible gas tubing, which came into effect in January 2005. All flexible gas tubing must be pre-approved by EMSD before it is imported, supplied or sold for use in Hong Kong, and approved tubing will bear an approval number and an expiry date for replacement. Schemes for other gas fittings are also under development.



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Achievements and Initiatives

4 能源效益獎

繼成功為公營機構舉辦節能比賽後，我們又於2004年年底為私營機構舉辦節能比賽。這項名為能源效益獎的比賽以商住樓宇及學校為對象，目的是要推廣最佳節能方法，表揚私營機構在能源效益和節約能源方面的成就，並藉著比賽讓私營機構能就這方面的工作成果作出比較，並找出需要改善的地方。目前已有超過300間機構參加這個比賽。

5 冷卻塔空調系統

2004年，申請採用較節能的蒸發式冷卻塔空調系統的數目增加了兩倍。我們共收到78宗申請，涉及的總樓面面積為430萬平方米，每年可節省5,200萬度電，並使二氧化碳排放量減少36,000公噸。為配合在全港推廣水冷式空調系統，我們正擬備工作守則，詳列建造、操作及保養冷卻塔的指引。

6 社區宣傳活動

機電安全香港通運動是本署和業內主要機構合辦的大型公眾教育活動，於2004年已步入第四年，我們增添了一些新構思，包括舉辦學生日營及利用公共交通工具進行宣傳等。此外，戶外嘉年華會亦延長至兩天，吸引更多市民參觀我們富教育意義的遊戲攤位。

其他社區宣傳活動尚包括出版為一般家庭而設的「機電與我」通訊，以及為社會不同階層舉辦的連串安全研討會和能源講座。

4 Energy Efficiency Awards

Following on from the successful introduction of the energy saving competition for the public sector, we launched a second award scheme in late 2004 for the private sector. Called the Energy Efficiency Awards, the competition is targeted at commercial and residential buildings and schools. It aims to promote best practices and recognise achievements in energy efficiency and conservation, as well as to provide an opportunity for the private sector to benchmark its efforts and identify areas for improvement. More than 300 entries have been received.

5 Cooling Tower-Type Air-Conditioning Systems

In 2004, we witnessed a two-fold increase in applications for the adoption of the more energy-efficient evaporative cooling tower-type air-conditioning system. A total of 78 applications were received, involving a total floor area of 4.3 million square metres and a potential annual saving of 52 million kWh in energy consumption and a reduction of 36,000 tonnes of carbon dioxide emissions. Moving towards the territory-wide implementation of water-cooled air-conditioning systems in Hong Kong, a code of practice is being prepared to set out guidelines for the construction, operation and maintenance of cooling towers.

6 Community Outreach Programme

Moving into its fourth year, the E&M Safety Campaign is well established as one of Hong Kong's largest public education initiatives and represents a strategic collaboration between EMSD and key industry players. Student day camps and promotion through public transport were among the new ideas introduced to the campaign in 2004. The outdoor carnival was also expanded into a two-day event, attracting even more citizens to the educational game booths.

Other community outreach initiatives included the E&M Safety Newsletter, a home-based publication designed for the general household, and a line-up of safety seminars and energy talks targeted at the different strata of the community.



高層管理人員

(左起) (From left)
黎偉雄 Lai Wai-hung
何光偉 Ho Kwong-wai
黎仕海 Lai Sze-hoi
黃達平 Uy Tat-ping
莊國輝 Chong Kwok-fai
吳鴻成 Ng Hung-shing



Senior Management

署長
Director

黎仕海太平紳士
Lai Sze-hoi, Roger, JP

機電工程署署長
Director of Electrical and Mechanical Services

副署長
Deputy Director

何光偉太平紳士
Ho Kwong-wai, JP

副署長 / 規管服務
Deputy Director / Regulatory Services

助理署長
Assistant Directors

黃達平
Uy Tat-ping

助理署長 / 能源效益
Assistant Director / Energy Efficiency

黎偉雄
Lai Wai-hung

助理署長 / 氣體及一般法例
Assistant Director / Gas and General Legislation

秘書
Secretary

莊國輝
Chong Kwok-fai, Bernard

主任秘書
Departmental Secretary

會計師
Accountant

吳鴻成
Ng Hung-shing, Robin

部門會計師
Departmental Accountant

署長的話

保障公眾安全，是我們身為規管機構十分重視的職責。過去一年，香港發生的機電事故減少，可惜其中兩宗個案卻令這個本來正面的數字蒙上陰影。兩次事故均涉及大廈電力裝置，每次均令一名小童不幸賠上寶貴生命。

這兩宗慘劇令我們反思我們的工作到底是否足夠，要怎樣才能避免日後發生類似意外。

改變公眾態度

對大部分人來說，電力安全純粹是電業承辦商及電業工程人員的責任。這並不完全正確。我們認為大家應將視野擴闊；在確保大廈電力安全方面，其他相關機構（例如物業管理公司）亦可扮演更積極的角色。

為此，我們去年特別落實雙管齊下的計劃。一方面我們為物業管理業界舉辦安全講座，邀請 800 多家公司出席。這些講座旨在鼓勵負責物業管理的督導人員和前線員工定期視察固定電力裝置，以加強樓宇安全。我們並派發簡便實用的指引和核對項目清單，以便他們進行例行視察的工作。同時，我們又為電氣業界安排會議和舉辦研討會，並加強抽查住宅樓宇的電力裝置。

“要改變市民的態度和行為是需要時間的，不過，我們必須踏出第一步。 We understand that it takes time to effect a change in public attitude or behaviour. Nonetheless, we must take the first step.”

這計劃雖然已初見成效，卻只是我們長遠策略的第一步。我們期望能改變市民對機電安全的想法，令大家明白所有人都能盡一分力，都能為提高本港的機電安全水平作出貢獻。

要改變市民的態度和行為是需要時間的，不過，我們必須踏出第一步。我們深信，只要機電工程署上下員工努力不懈，全心全意工作，假以時日，定能達到正面的實質進展。

游說業主奏效

吉祥大廈的個案再次證明游說比懲處更加有效。吉祥大廈的 650 名業主由於沒有聘用物業管理公司，也沒有成立業主立案法團，故儘管法例規定要為大廈的電力裝置進行檢查和測試，各業主卻無法作出安排。

我們沒有馬上訴諸檢控，反而用了幾個月時間，向個別業主及住戶進行家訪游說，並召開會議，解釋安全問題和法例規定。業主最終達成共識，同意安排全面檢查大廈的電力裝置，事情得以圓滿解決，我們亦無需作出檢控。

協助弱勢社群

機械安全方面，弱勢社群（特別是殘疾人士）是我們在 2004 年的重點關注對象之一。為了方便殘疾人士使用本港

Message from the Director

Upholding public safety is a regulatory responsibility that we take very seriously. While Hong Kong suffered fewer electrical and mechanical incidents in the past year, two cases overshadow this positive record. Both involved electrical installations in buildings and, tragically, both claimed a child's life.

These sad accidents have rightly given us cause to reflect on whether we have done enough and to ask ourselves what more we can do.

Changing Public Attitudes

For most people, electrical safety begins and ends with electrical contractors and workers. But this is not entirely the case. We suggest a broader perspective – one that acknowledges that other stakeholders, such as property management companies, are well positioned to take a more pro-active role in ensuring electrical safety in buildings.

To this end, we therefore orchestrated a two-pronged programme last year. We engaged the property management sector through safety talks to which some 800 companies were invited. These talks were designed to encourage building management supervisors and frontline personnel to regularly inspect fixed electrical installations as a stepped-up safety measure. Handy checklists and practical tips were offered to

facilitate this work. At the same time, we lined up meetings and seminars for the electrical trade and stepped up our sampling checks on residential buildings.

While such an approach has brought immediate benefits, it was intended more as the start of a long-term strategic initiative. We want to change people's mind-set about E&M safety; everyone has a role to play and everyone can contribute to a safer Hong Kong.

We understand that it takes time to effect a change in public attitude or behaviour. Nonetheless, we must take the first step. With the relentless effort and dedication of our team at EMSD, we believe we can make a positive and real difference.

Prevailing through Persuasion

The Kut Cheong Mansions case once again confirms our belief that persuasion is more effective than policing. In the absence of a property management company or an incorporated owner, the 650 owners of Kut Cheong Mansions found it difficult to organise the testing of their electrical installations, despite mandatory statutory requirements to do so.

Rather than resorting to prosecution, we instead spent many months on home visits and lengthy meetings with individual owners and occupants to explain the safety issues and statutory requirements. Eventually, the issue was satisfactorily resolved

when the owners reached a consensus and arranged for a full inspection of their buildings' electrical installations. No prosecutions were required.

Helping Minority Groups

Minority groups, particularly the disabled, became one of the focuses of our work on mechanical safety in 2004. To facilitate disabled persons access to Hong Kong's various public facilities, we recently approved a new stair-lift design suitable for installation at a Kowloon Bay footbridge where headroom is limited. We have also prepared a revision to the code of practice for fitting out stair-lifts in existing buildings with limited headroom and this is now under consultation with the trade and concerned organisations. These efforts are merely the beginning of a long-term plan to ensure that everyone in Hong Kong has easy and safe access to community facilities. Even amusement rides are no longer off limits to the disabled, as new design guidelines have now been established for their access.

Encouraging Energy Efficiency

The Energy Efficiency Office, which celebrated its tenth year of operation in 2004, continues to expand its in-house expertise in the application of renewable energy while spearheading energy efficiency initiatives to encourage the community to save energy.

署長的話

的公共設施，我們最近批准了一款新的梯級升降機設計，適合在九龍灣一條有高度限制的行人天橋上安裝。我們亦修訂工作守則，以便在有高度限制的現有建築物內安裝梯級升降機，現正徵詢業界和有關機構的意見。以上各項工作只是我們長遠計劃的起步，目標是要確保所有人均能安全及方便地使用各項社區設施。我們又制定了新的機動遊戲機設計指引，讓殘疾人士也可享用這些設施。

提倡能源效益

2004年適逢能源效益事務處成立十周年，我們繼續加強在應用可再生能源的知識和技術，並全力推動各種節能措施，鼓勵市民節省能源。

公營機構的節能比賽剛於2004年年底圓滿結束。為了進一步推廣節能概念，我們於2004年10月為私營機構舉辦同類比賽，以表揚私營機構的良好節能表現和方法。這個首次為私營機構而設的能源效益比賽已有300多所商業／住宅樓宇及學校參加，比賽結果將於2006年年初公布。

憑著過去十年累積的經驗，加上本港市民對能源效益的意識日漸提高，我們有信心能源效益的工作可更上一層樓。

維繫社區參與

我們的工作時時需要發揮創意，而從事社區外展等宣傳工作的員工更絕不能因循守舊。我們於2004年推出一系列嶄新的宣傳計劃，包括舉辦學生日營及在本地一家主要源自報章撰寫每周一次的答問專欄。

2004年，我們連續第四年舉辦機電安全香港通運動，向青少年和廣大市民宣揚安全及能源效益信息。其中學生日營活動以小學生為對象，成功將機電安全及節能信息融入有趣的遊戲及日營活動中；而機電安全嘉年華則延長至兩天，這個於周末舉行的活動集歌唱表演、遊戲和兒童活動於一身，吸引超過12,000名市民參加。

為了擴闊與普羅市民的接觸層面，我們於去年出版了一份教育與娛樂並重的通訊。這份名為「機電與我」的消閒雜誌式刊物，提供機電安全和能源效益的貼士，並分發到各屋邨及學校。

2004年，我們在提倡家居安全和節約能源的成績令人滿意。除了可歸功於我們懂得善用科技外，更重要的是，我們各員工孜孜不倦，努力不斷向業界和市民大眾推廣安全意識和節能觀念。要不是他們辛勤工作，耐心堅持，以完成使命為己任，我們不可能取得如此佳績。

副署長／規管服務何光偉先生及其隊伍克盡厥職，表現卓著，本人謹此致謝。

黎仕海

黎仕海

機電工程署署長

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機電工程署成功游說吉祥大廈650名業主為電力裝置進行檢查及測試。
EMSD managed to convince all 650 owners of Kut Cheong Mansions to arrange for a full inspection of their buildings' electrical installations.



學生日營是機電安全香港通運動的新添項目。
Student day camps were introduced to the line-up of E&M Safety Campaign.



能源效益事務處成立十周年，繼續肩負推廣能源效益及節約能源的任務。
Celebrating its tenth anniversary, the Energy Efficiency Office continued to spearhead energy efficiency and conservation initiatives.

Message from the Director

The year closed on a high note with the successful conclusion of the energy saving competition for the public sector in late 2004. To further the energy efficiency concept and to recognise best practices in the private sector, we launched a similar award scheme in October 2004. More than 300 commercial / residential buildings and schools have already joined the first-of-its-kind Energy Efficiency Awards competition for the private sector. Results will be announced in early 2006.

We are confident that we will achieve even more in our energy efficiency work in the future, building on the experience we have gained over the past decade and on Hong Kong's heightened awareness of energy efficiency issues.

Engaging the Community

Creativity is an important job skill for many of us, and especially so for those engaged in community outreach. New programmes launched in 2004 included student day camps and a weekly question-and-answer column published in a major Chinese-language newspaper.

In its fourth consecutive year in 2004, the E&M Safety Campaign again sought to bring safety and energy efficiency messages to young people and the wider community. The educational day camps successfully blended our messages into fun games and camp activities for primary school students, while the E&M Safety Carnival was expanded into a lively weekend event, combining live music, games and children's

activities and attracting more than 12,000 visitors over the two days.

In reaching out to the community, we launched the E&M Safety Newsletter last year to educate and entertain members of the public. Distributed to housing estates and schools, it is designed as a leisure magazine with tips on E&M safety and energy efficiency.

The year 2004 has been another fruitful one for EMSD in realising our vision of greener and safer homes for Hong Kong. Some of our success can be attributed to the good use of new technologies. But more importantly, I think, it was the result of our team's effort to foster safety consciousness and an energy-conservation mind-set among the trade and the community. This would not have been possible without the team's hard work, patience, perseverance and sense of mission.

I would like to take this opportunity to thank our Deputy Director of Regulatory Services, Mr K W Ho, and his team for their excellent work.



Roger S H Lai

Director of Electrical and Mechanical Services



業務回顧

我們在日常工作上不斷
，以提高

We are making increasing use of technologies in our daily work to enhance our administrative efficiency and productivity.

我們以「科技節能易安居」作為這刊物的主題，正好帶出我們規管服務的工作方向。

除了為公營部門及私營機構引入最新的節能科技外，我們在日常工作上亦不斷引進先進科技，特別是廣泛採用各種資訊系統，以提高行政效率和生產力。

我們正研究能否在前線巡查及調查工作方面，使用比個人數碼助理有更強大功能的平板電腦。平板電腦由現有的個人數碼助理系統改良而成，配以完善的數據庫，能簡化巡查程序，令巡查和調查工作更有效率。至於後勤辦公室方面，我們已安裝電子文件管理系統，讓員工能夠在虛擬的辦公室環境下儲存、閱覽、分享及交換文件，大大縮短工作流程，並騰出大量原用作存放文件的地方。此外，我們還安裝了其他提高生產力和改善工作環境的系統，包括 LEOSII 和 EORSII 系統，這些系統分別為升降機及自動梯、以及電力方面的規管工作而設，有助精簡申請程序、提高工作效率及減低行政開支。

我們相信透過運用科技來改善運作及工作程序，對我們建立更安全及更節能的家居大有幫助。

安全的家

「家」不單指個人居所，更泛指我們起居生活的地方——香港。

去年，我們工作重點之一是大廈電力裝置安全。我們加強巡查，同時促請相關機構積極加強大廈安全。一方面我們與電氣業界合作，為 1,000 名電業承辦商和電業工程人員舉辦大型技術研討會；另一方面，又為超過 800 間物業管理公司舉辦連串安全講座。

家用電器產品的安全是我們去年另一重點。除了編定的檢查和聯絡外，我們亦加強與水族器材及燈飾產品的商會合作，並且在售賣有關產品的店鋪進行突擊檢查。

Operations Review

The theme of this publication, Technologies for Safer, Greener Homes, reflects our approach to providing regulatory services to the community.

Apart from the introduction of the latest energy efficiency technologies to both the public and private sectors, we are also making increasing use of technologies in our daily work, in particular through the wider application of various information systems to enhance our administrative efficiency and productivity.

We are now exploring the possibility of using tablet PCs in our frontline operations. Improving upon current PDA systems, the tablet PCs will be coupled with a comprehensive database to streamline inspection processes and bring greater efficiency to our inspection and investigation work. At the back office, we have installed an electronic document management system (e-DMS), allowing officers to store, view, share and exchange documents in a virtual office environment. This has considerably shortened workflow cycles and freed up a great deal of office space previously required for paper-based filing and document storage. Other systems that contribute to a more productive and effective working environment include LEOSII and EORSII, which enhance our regulatory work in the areas of lifts and escalators, and electricity, respectively. Both are designed to streamline application processes, improve work efficiency and reduce administrative costs.

We believe that improving our operations and processes through the application of these technologies will help us to more effectively and efficiently create safer and greener homes in Hong Kong.

Safer Homes

“Homes” means more than the domicile of individuals. It also refers to Hong Kong as our place of abode.

Safety of electrical installations in buildings was our focus last year. We stepped up our inspections and simultaneously called for stakeholders to take a more active role in ensuring building safety. On one hand, we collaborated with the electrical trade in conducting a large-scale technical seminar for 1,000 electrical contractors and workers. On the other hand, we organised a series of safety talks for more than 800 property management companies.

Safety of household electrical products was also our focus last year. Apart from our scheduled inspections and liaison, we also enhanced cooperation with trade associations on aquarium and lighting products and conducted surprise inspections at common supply outlet points.

We are also revising the Code of Practice on Working near Electricity Supply Lines with a view to reducing third-party cable damage to a minimum, thus ensuring the high reliability of power supply systems.



我們引進多項有助提高生產力和改善工作環境的資訊系統。
Various information systems are introduced to create a more productive and effective working environment.



大廈電力安全是我們2004年的工作重點。
Safety of electrical installations in buildings was our focus in 2004.

業務回顧

我們現正修訂「有關在供電電纜附近工作的實務守則」，俾能將第三者損壞電纜的事故減至最少，從而確保供電系統運作可靠。

至於與市民生活息息相關的升降機和自動梯，我們繼續向業界及建築物擁有人提供相關的安全支援。我們剛出版新的「上落平安—升降機操作及保養須知」，旨在加深建築物擁有人對升降機保養的了解和認識；此外我們又特別為業界制定新的升降機操作及保養指引。

我們發表了有關車輛維修技工註冊計劃的建議書，並進行公眾諮詢。註冊計劃是我們加強規管業界的第一步，俾能提高道路安全之餘，更可減少對環境可能造成的污染。

為了應付或會出現的石油短缺危機，我們於2004年6月加強了石油供應應變計劃，並於2005年1月進行了模擬演習。

至於大嶼山新建的架空纜車和香港迪士尼樂園機動遊戲等設施，我們已完成設計審批，2005年便會監察其建造工程，並進行測試，以確保安全操作。

我們與內地部門的合作進展良好，我們於2004年4月與國家質量監督檢驗檢疫總局首次召開周年會議，並開展連串合作活動，包括確立溝通渠道和舉報及回收問題產品的機制。我們會繼續與內地部門合作，俾能提高兩地的安全標準。

節能的家

推廣水冷式空調系統方面，我們的工作進入了一個新階段，我們已開始編訂水冷式空調系統的工作守則，並把重點放在冷卻塔類別的系統。業界對我們推出的冷卻塔先行性計劃反應熱烈，申請宗數在2004年大幅上升。新的工作守則會參考國際經驗和規管架構，詳列建造、操作及保養冷卻塔的指引。

至於可再生能源方面，研究能否在本港使用風能是我們的重點工作之一。我們已建立兩個風力監測站，另外三個亦會於2005年年初完成，以蒐集風力數據，衡量香港是否有使用風力發電的潛力。此外，我們亦鼓勵和協助兩間電力公司興建兩個大型風力發電機，為公眾示範的項目。



國家質量監督檢驗檢疫總局與機電工程署於2004年4月召開首次周年會議。
The first annual general meeting between AQSIQ and EMSD took place in April 2004.



我們修訂「有關在供電電纜附近工作的實務守則」，旨在將第三者損壞電纜的事故減至最少。
The Code of Practice on Working near Electricity Supply Lines is being revised with a view to reducing third-party cable damage to a minimum.



我們就推行自願性車輛維修技工註冊計劃進行公眾諮詢。
A proposal for a voluntary registration scheme for vehicle mechanics has been published for public consultation.

Operations Review

As for lifts and escalators, an essential part of our daily life, we continued our support to both the trade and building owners. A new Lift Owners' Guidebook was published to give building owners a better understanding of the maintenance of lifts, while new operation and maintenance guidelines have been specially designed for the trade.

A proposal for a new registration scheme for vehicle maintenance mechanics has been published for public consultation. It represents a first step to better regulating the trade, and should help enhance road safety and reduce the potential environmental damage caused by motor vehicles.

To step up our preparedness for an oil supply emergency, we enhanced our Oil Supply Contingency Plan in June 2004 and then staged a drill in January 2005.

Design approvals for the new aerial ropeway on Lantau Island and the amusement rides at Hong Kong Disneyland have been completed. The year 2005 will see us monitoring their construction and carrying out tests for operational safety.

Our cooperation with Mainland authorities is also progressing well. We held our first annual meeting with the General Administration for Quality, Supervision and Inspection and Quarantine (AQSIQ) in April 2004, kicking off a series of joint activities to open up channels of communication and establish report-and-recall mechanisms for problematic products. We

will continue to work with our Mainland counterparts to help heighten safety standards across the border.

Greener Homes

Our work on Water-cooled Air-Conditioning Systems (WACS) has entered a new and exciting stage with the commencement of the compilation of a code of practice for WACS, focusing on the cooling tower type. The Cooling Tower Pilot Scheme has been well received and we witnessed an upsurge in applications in 2004. The new code of practice will set out guidelines for the construction, operation and maintenance of cooling towers, making reference to international experience and regulatory frameworks.

On renewable energy, exploration of the use of wind energy was our focus of work. Two wind monitoring stations have been set up to measure the wind potential in Hong Kong, with three more coming up in early 2005. We have encouraged and facilitated the erection of two production-scale wind turbines by the two power companies for public demonstration purposes.

In the coming years, we expect more use of natural gas in power generation, since it has long been regarded as a cleaner fuel. Submarine pipelines will be built by two of Hong Kong's utilities companies for the importation of natural gas from Shenzhen.



我們加強石油供應應變計劃，並進行了一次模擬演習。

We have enhanced our Oil Supply Contingency Plan and staged a drill.

業務回顧

天然氣是公認為較環保的燃料，未來數年，我們預期發電廠會增加使用天然氣。香港兩家公用事業公司將會分別興建兩條海底天然氣管道，俾能由深圳進口天然氣到香港。

我們的能源效益標籤計劃現已涵蓋17種產品，包括新加入的電子鎮流器、電腦和住宅式即熱氣體熱水爐。

去年，我們聘請顧問，分析建造及拆卸樓宇涉及的物料和組件的能源開支，這是我們另一項與節能家居概念息息相關的重要計劃。有關研究制定了一套評估建築物使用壽命總能源開支的工具，由建築物料的開採、處理、製造、運送、使用、維修，以至最終的循環再造及棄置時涉及的能源開支，均包括在內。這個使用壽命能源分析工具不但能提高本港建築業在進行本地工程時的可持續發展意識，且有助本地設計師衡量及提高其建築物的環保、能源和經濟表現。

過去十二個月，各部別均埋首於連串工作和推出新措施，期間縱遇上困難波折，同事均能一一化解。我們在巡查、執法、公眾教育等各方面的成績均有突破，並與一些首次合作的團體攜手，做出成績。

承蒙規管服務全體員工竭盡所能，緊守崗位，成績斐然，本人衷心感謝。

何光偉

何光偉

副署長／規管服務

我們興建風力監測站以研究在本港使用風能的潛力。
Wind monitoring stations are set up to measure the wind potential in Hong Kong.



推廣水冷式空調系統的工作進入新階段。
Our work on WACS has entered a new stage.

Operations Review

The Energy Efficiency Labelling Scheme now covers 17 product categories, including recent additions electronic ballasts, computers and domestic gas instantaneous water heaters.

Another key initiative for EMSD last year, and one that really gets to the crux of the greener homes concept, was a consultancy study to analyse the embedded energy costs associated with materials and components used in building construction and demolition. The study developed an assessment tool to evaluate total costs throughout a building's life cycle - from extracting and processing the building materials, to manufacturing and transportation, use and maintenance, and finally recycling and disposal. This Life Cycle Energy Analysis (LCEA) tool is a cornerstone of our efforts to raise awareness of sustainable development in local construction among the building industry and will help local designers to measure and enhance the environmental, energy and economic performance of their buildings.

The past 12 months have been particularly busy, with all of our divisions engaged in numerous activities and new initiatives. I am pleased to report that our team has taken in its stride any difficulty or resistance encountered along the

way. We have also broken new ground in the areas of inspection, law enforcement and public education, and in engaging stakeholders with whom we have not previously worked.

I would like to express my deepest gratitude to all our staff at Regulatory Services for their support, good work and dedication.



Ho Kwong-wai

Deputy Director / Regulatory Services



我們制定了一套評估建築物使用壽命總能源開支的工具，以提高本港建築業的可持續發展意識。

A Life Cycle Energy Analysis tool has been published to raise awareness of sustainable development among local building industry.

保障公眾安全
**Protecting
Public Safety**





「透過運用科技來改善運作及工作程序，對我們建立更安全的家居大有幫助。」

“Improving our operations and processes through the application of technologies will help us to more effectively and efficiently create safer homes in Hong Kong.”



「游說是十分有效的。我們用了幾個月時間向吉祥大廈650名業主進行家訪和召開會議，終於取得成果，令他們達到共識，為電力裝置進行測試及領取證明書，以確保大廈安全。謹此向民政事務處、區議會和本署員工致謝。」

"Persuasion prevails. Months of home visits and meetings came to fruition when all 650 owners of Kut Cheong Mansions agreed to have their electrical installations tested and certified to ensure safety. Special thanks should go to the District Office, the District Council, and our relentless team at EMSD."

梁建民 Leung Kin-man

總機電工程師（電力法例部）
Chief Electrical and Mechanical Engineer
(Electricity Legislation Division)

保障公眾安全

電力安全

游說更勝檢控

雖然業主有責任確保其樓宇的電力安全，但部分業主發現要遵行法例規定，為其固定電力裝置進行定期測試及領取證明書，並不容易。要是大廈沒有聘用物業管理公司或成立業主立案法團，更感難上加難。

吉祥大廈的個案正是其中例子。該屋苑位於港島東，共有14幢樓宇。我們與民政事務處及區議會議員合作，成功游說全部650名業主進行所需的安全檢查和測試。雖然我們用了幾個月時間進行家訪和召開會議，但卻能避免進行大量檢控及支付有關法律開支。更重要的是，這個案證明游說亦可較檢控更為有效，而且彰顯各方共同致力保護公眾安全的合作精神。

加強大廈安全

2004年，機電工程署致力推廣為大廈的固定電力裝置採取安全措施。

首先，我們鼓勵物業管理公司定期視察其電力裝置，並擬備新的單張，為前線員工提供清晰的指引和實用簡便的貼士。

其次，我們又向主要商會講解確保電力安全的重要性。

第三，我們為本港全數800多間物業管理公司舉辦講座和座談會，業界反應熱烈，參加者數以百計，當中包括監督人員和前線員工。

第四，我們加強對住宅樓宇的電力裝置進行抽樣巡查。

第五，透過我們的通訊刊物推廣電力裝置安全，並在電業承辦商及工程人員的周年研討會上重點討論這方面的問題。

修訂有關在供電電纜附近工作的實務守則

自從《供電電纜（保護）規例》於2000年生效後，在供電電纜附近進行的工程受到規管，第三者損壞電纜事故的數目因而大減。

但我們不會因此自滿，並且建議修訂有關實務守則，務求進一步減少電力事故和電力供應中斷。我們進行了一個為期三個月的諮詢，是次諮詢已於2004年9月結束，超過30間機構提出意見及建議，當中包括建築公司和電力公司。我們預期於2005年內修訂實務守則所載的技術指引、程序和工作方法。



我們推出了多項措施加強大廈電力安全。

Various measures are introduced to enhance safety of electrical installations in buildings.

Protecting Public Safety

Electrical Safety

Persuasion Avoids Prosecution

While property owners have the duty to maintain electrical safety on their premises, some find it difficult to comply with the statutory requirement to have their fixed electrical installations periodically tested and certified. This is especially true in buildings without a property management company or an incorporated owner.

Kut Cheong Mansions, a 14-block estate in Island East, was a case in point. In collaboration with the District Office and members of the District Council, EMSD successfully persuaded all 650 building owners to carry out the required safety inspection and testing. Although it took months of home visits and meetings, this avoided a huge number of prosecutions and the associated legal expenses. More importantly, this case demonstrates that persuasion can be more effective than prosecution and underlines the power of collaboration in protecting public safety.

Enhancing Building Safety

The year 2004 saw EMSD make a concerted effort to promote the widespread application of safety measures for fixed electrical installations in buildings.

First, we encouraged property management companies to undertake regular inspections of their electrical installations. A new pamphlet was prepared to provide clear step-by-step guidance and practical tips for frontline personnel.

Second, we briefed major trade associations on the importance of maintaining electrical safety.

Third, safety talks and forums were organised for all 800 property management companies in Hong Kong. These were well attended by hundreds of people from the trade, including both supervisors and frontline personnel.

Fourth, we stepped up our sampling checks on residential buildings.

Fifth, we publicised electrical installation safety through our newsletter as well as highlighting the issue at our annual seminar for electrical contractors and workers.

Supply Lines Code Revised

Since the introduction in 2000 of the Electricity Supply Lines (Protection) Regulation governing works carried out in the vicinity of electricity supply lines, the number of third-party damage incidents has declined substantially.

Rather than being complacent, however, we proposed revisions to the relevant code of practice in a bid to further reduce electrical incidents and power interruptions. During the three-month consultation period that ended in September 2004, more than 30 organisations, among them construction bodies and power companies, submitted their opinions and suggestions. We expect to fine-tune the technical guidelines, procedures and practices for the revised code of practice in 2005.

Strengthening Cross-border Cooperation

Following the signing of the cooperation arrangement between the General Administration for Quality, Supervision and Inspection and Quarantine (AQSIQ) of the People's Republic of China and EMSD, the first annual general meeting took place in April 2004. Three working groups were set up to take charge of safety issues related to domestic electrical appliances, gas appliances, and lifts and escalators, respectively.

The cooperation arrangement aims to establish communication channels and an effective report-and-recall mechanism for problematic products. At the same time, it will also facilitate technology exchange and reciprocal training for enforcement personnel, as well as product certification.

保障公眾安全

加強跨境合作

繼國家質量監督檢驗檢疫總局與本署簽訂合作安排後，首次周年會議已於 2004 年 4 月召開，並成立了三個工作小組，分別負責與家用電器、氣體用具和升降機及自動梯有關的安全事宜。

有關的合作安排旨在建立溝通渠道及有效的問題產品通報及回收機制，並能促進技術交流，方便為雙方的執法人員提供訓練及進行產品認證。

此外，我們也有與其他內地部門合作，包括與國家標準化管理委員會合作，參考內地和本港的用語，編訂電工術語對照表，供兩地的電業工程人員使用。

確保激光安全

身為政府激光安全顧問，我們與各有關機構和政府部門，包括香港旅遊發展局、旅遊事務署、食物環境衛生署、民航處、海事處和路政署等合作，確保激光科技在本港得以安全使用。

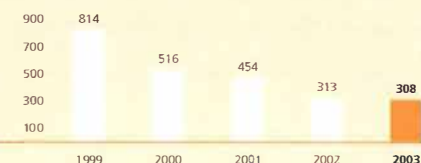
2004 年，我們處理了 16 宗有關工業、商業及娛樂方面使用激光的安全檢查申請，當中包括公開表演、演示、演唱會、的士高等場所所使用的激光，以及用作土地測量儀器的激光產品。

最近，我們為業界出版了「工業、演示及娛樂用途激光安全指南 2005」；並編印供市民參考的「激光產品安全指引」。

第三者損壞電纜事故的數目減少 Third-Party Damage in Decline

第三者損壞供電電纜導致停電的事故數字，自 1999 年起持續下降。

The annual number of incidents of third-party damage to electricity supply lines resulting in power interruption has been declining since 1999.



國家標準化管理委員會及轄下的全國電工術語標準化委員會與機電工程署在深圳召開第一次「電工術語對照表」工作小組會議。

The Standardization Administration of China (SAC), the National Technical Committee of Electrotechnical Terminology Standardization under the SAC and EMSD held the first working group meeting on "Cross Reference Table on Electrical Engineering Glossary" in Shenzhen.

本署的管理局招待馬來西亞政府能源部的代表，並交流技術和分享經驗。

EMSD management plays host to representatives of the Energy Division of the Malaysian Government, exchanging technologies and sharing experiences.

設於總部的客戶服務部為機電業界的承辦商和工程人員提供一站式註冊服務。

Our headquarters-based Customer Services Office now provides one-stop service for registration of contractors and workers in the E&M trade.

Protecting Public Safety

In another collaborative effort with Mainland authorities, EMSD joined forces with the Standardization Administration of China in compiling a cross-referenced electrical engineering glossary for the use of electrical workers across the border.

Ensuring Laser Safety

As the Government Laser Safety Adviser, we worked closely with various authorities and government departments, such as the Hong Kong Tourism Board, Tourism Commission, Food and Environmental Hygiene Department, Civil Aviation Department, Marine Department and Highways Department, to ensure the safe use of laser technologies in Hong Kong.

In 2004, we processed 16 applications for safety checks on the use of lasers for various industrial, commercial and entertainment purposes, including public performances, displays, concerts and discos, as well as for laser products such as land surveying instruments.

Recently, we published the 2005 edition of Laser Safety Guidance Notes for Industry, Display and Entertainment for the trade, and the Safety Guidelines for Laser Products for the interest of the general public.



「電力快訊」已成為一份電力業界必看的期刊，讓電業工程人員和承辦商得悉最新的安全工作資訊和法例規定。

This newsletter has become a regular must-read for the electrical trade, updating electrical workers and contractors on new safety practices and statutory requirements.



我們與中電、港燈、中國檢驗有限公司和房屋委員會合作，派出由工程師和督察組成的義工隊，探訪長者，為其居所進行安全檢查，並就安全使用電氣產品提供意見及實用貼士。

In a joint effort with CLP Power, Hongkong Electric, China Inspection, and the Housing Authority, our volunteer team of engineers and inspectors paid home visits to the elderly to perform safety check-ups, provide advice on the safe use of electrical products and share safety tips.



機電工程署與業界商會合作，為電業承辦商和電業工程人員舉辦一年一度的技術研討會。

The annual technical seminar for electrical contractors and workers is a joint effort of EMSD and trade associations.



為了進一步在本港推廣家居安全習慣，我們在菲律賓駐港總領事的協助下，將「家居電力安全手冊」翻譯成菲律賓語，方便來自菲律賓的家務傭工參閱。

In an effort to further promote safety practices in homes across Hong Kong, a new edition of the Household Electrical Safety Handbook has been published in Filipino. Catering for domestic helpers from the Philippines, it was produced with the assistance of the Philippine Consulate General.

保障公眾安全



「我們先為住宅式氣體用具推出 GU 標誌，現在又為氣體接駁軟喉制定批准計劃。接著我們會為其他氣體配件制定類似的規管計劃，這一切都是為了加強本港的家居安全。」

"First, we had the GU Mark for domestic gas appliances. Now we have an approval scheme for flexible gas tubing. Similar regulatory schemes are in the pipeline for other gas fittings – all geared towards safer homes in Hong Kong."

張丙權 Michael P K Cheung

總工程師 (氣體標準事務處)
Chief Engineer
(Gas Standards Office)

氣體安全

氣體接駁軟喉批准計劃

繼在2003年推出住宅式氣體用具批准計劃後，我們又為氣體接駁軟喉制定類似計劃。有關守則於2004年7月在憲報刊登，並由2005年1月起生效，所有氣體接駁軟喉必須先獲本署批准，才可進口本港或在本港供應或出售。獲批准的軟喉會印有批准編號和更換期限，以資識別。我們正為其他氣體配件制定類似計劃，務求所有家居氣體配件均能達到國際安全水平。

制定石油短缺應變計劃

為使香港能應付石油供應短缺的情況，我們制定了石油供應應變計劃。該計劃定明政府應如何協調石油的供應、使用及保存，盡量減少石油供應短缺對本港造成的影響。

2004年6月，我們修訂應變計劃，以加強管理石油供應短缺事宜，計劃的重點包括：

- 確保迅速搜集及發放準確資料，以便就緊急情況採取行動；
- 確保能維持必需的公共服務；
- 制定具體相應措施，以減少耗油量；
- 因應導致石油供應緊張的原因，訂定及採取適當措施；以及
- 在實行應變措施方面，確保得到公眾及油公司的支持及參與。

為使香港能妥善應付石油供應短缺的危機，以及把應變計劃付諸行動，我們在2005年1月進行模擬演習，有20多個決策局及部門參加。這次演習不但加強部門之間的溝通，亦有助增強我們在應付石油短缺情況方面的能力及信心。

氣體安全方面的區域性合作

機電工程署是西太平洋地域認證機關會議的成員，該組織旨在討論當前的技術和工程發展，並協調各成員採用的安全標準。於2004年10月在漢城舉行的會議上，我們講解一份有關香港住宅式氣體用具批准計劃的技術文件。此外，我們亦透過會議、會面、書信等途徑，與其他地區包括日本、韓國、新加坡和澳洲等地的認證機關保持密切聯繫，就測試和認證管理事宜交換資訊，並交流經驗。

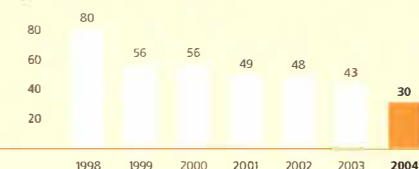
鑄鐵氣體喉管已全數更換

香港中華煤氣有限公司已更換所有地下鑄鐵氣體喉管，全長30公里，使香港成為首個完成更換鑄鐵氣體喉管的城市。機電工程署一直監察這項工程的進展。

氣體喉管損毀事故數目下降 Gas Incidents in Decline

自1998年氣體喉管事故不斷下降。

The number of damage incidents of gas pipes has been declining since 1998.



Protecting Public Safety

Gas Safety

Approval Scheme for Flexible Gas Tubing

Following on from the successful launch of the domestic gas appliances approval scheme in 2003, we have developed a similar scheme for flexible gas tubing. Gazetted in July 2004, the scheme came into effect in January 2005. From this date, all flexible gas tubing must be pre-approved by EMSD before it is imported, supplied or sold for use in Hong Kong. Approved tubing will, for identification purposes, bear an approval number and an expiry date for replacement. Schemes for other gas fittings are also under development, reinforcing our commitment to maintaining an international safety standard for domestic gas fittings.

Oil Shortage Plan in Place

As part of a multi-faceted strategy to prepare Hong Kong to deal with an oil shortage, the Oil Supply Contingency Plan sets out how the Government should coordinate the supply, use and conservation of oil to minimise disruption in the event of a shortfall in supply.

In June 2004, a new edition of this plan was developed to strengthen the management of oil supply contingencies. It focuses on the following:

- Ensuring the timely gathering and dissemination of accurate information to guide actions in response to the emergency;
- Ensuring essential public services are maintained;

- The development of specific response measures to reduce oil consumption;
- The establishment and implementation of appropriate measures in response to the specific causes of the oil supply emergency; and
- Ensuring the support and participation of both the public and the oil companies in the implementation of the contingency measures.

In a bid to enhance Hong Kong's preparedness for an oil shortage emergency and to put the contingency plan into action, we organised a drill in January 2005. More than 20 bureaux and departments participated. The drill strengthened inter-agency communication and was a boost to both our confidence and our ability to cope with oil supply emergencies.

Regional Collaboration on Gas Safety

EMSD is a member of the Gas Appliances Certification Meeting in the Western Pacific Region that aims to harmonise safety standards among participants and keep them abreast of ongoing technological advances and engineering developments. A technical paper on Hong Kong's domestic gas appliances approval scheme was presented at a meeting held in Seoul in October 2004. In addition, we continue to build a good rapport with our counterparts in various overseas bodies, including those in Japan, Korea, Singapore and Australia, through conferences, meetings, correspondence,



我們製作全新電視廣告和資料單張，提醒公眾使用卡式石油氣爐等氣體火竈爐具時要注意安全。該廣告由一位名廚擔任主角，並以輕鬆的手法製作，備受公眾歡迎。我們並將逾 10,000 份單張分發到全港各區的酒樓食肆。

A new television commercial and an informative leaflet were created to focus public attention on the safe use of hot-pot gas installations such as cassette cookers. Taking a light-hearted approach, the commercial featured a celebrity chef and has proved to be popular with the public. More than 10,000 leaflets have been distributed to all restaurants throughout the territory.



and so on, by which we exchange information and experiences with regard to testing and certification management.

Cast-iron Gas Pipes Fully Replaced

Hong Kong's cast-iron underground gas pipes - 30 kilometres in all - have now been replaced, making this the first city to do so. EMSD oversaw the Hong Kong and China Gas Company Limited in this undertaking.



「這不單只是改良梯級升降機的設計，更彰顯我們堅守的承諾，就是確保所有人均能安全及方便地使用本港的社區設施，包括殘疾人士在內。」

"It's more than a design enhancement for stair-lifts. It underlines our commitment to ensuring everyone – including the disadvantaged – have easy and safe access to the various community facilities in Hong Kong."

胡建明 Woo Kin-ming

總機電工程師（一般法例部）

Chief Electrical and Mechanical Engineer
(General Legislation Division)

保障公眾安全

機械安全

支援弱勢社群

我們批准一款經改良的梯級升降機設計，於九龍灣一條行人天橋使用。這款為殘疾人士而設的升降機適合在高度有限的地點安裝，為同類設施的先河。此外，我們正諮詢業界和有關機構（例如復康諮詢委員會），以加強工作守則的內容，以便在現有建築物內有高度限制的環境下安裝梯級升降機。

我們並於 2004 年訂定新的機動遊戲機設計指引，讓殘疾人士也可享用這些遊戲設施。

支援建築物擁有人

我們出版新的「上落平安—升降機保養及操作須知」，以加深建築物擁有人和業主立案法團對升降機維修的認識。該小冊子涵蓋基本知識及法例要求、日常實務須知、緊急事故情況的處理、合約及保養事項，以及更新工程等資料。

配合該小冊子的出版，我們又舉辦連串安全講座和研討會，共有超過 800 名建築物擁有人、業主立案法團及物業管理公司的代表出席。

支援業界

我們於 2004 年成功地為升降機及自動梯工人舉辦第二屆安全問答比賽。是次活動由本署、職業安全及健康局、職業訓練局、勞工處及主要商會合辦。除了工人安全問答比賽外，我們又舉辦連串有關升降機及自動梯工程的安全研討會，首個研討會於 2004 年 8 月舉行。

另一方面，本署又與屋宇署合作，為獲授權進行升降機裝置建造工程的人士提供指引。我們亦就擬備操作及維修手冊發出指引，俾能令轉換升降機承建商時，保養工作的交接能順利進行，以確保安全。

為車輛維修技工註冊

政府正考慮為本地車輛維修業引入註冊制度。雖然機械故障並非交通意外的主要肇因，但妥善保養車輛無疑有助防止意外，加強道路安全。此外，不合標準的保養不單為車主帶來煩惱，亦會造成空氣污染，影響市民的健康。

在考慮是否有需要推出規管計劃、計劃的好處和對服務水平的影響、各方是否接受及業界能否配合的因素後，我們決定採取一個漸進式、可平衡各方利益的方法。有關安排旨在減輕計劃對業界造成的財政壓力，紓緩對就業方面

Protecting Public Safety

Mechanical Safety

Support to Minority Groups

An enhanced stair-lift, designed for locations with limited headroom, has been approved for use at a footbridge in Kowloon Bay, setting a precedent for similar designs catering for the disabled. Moreover, consultation with the trade and concerned associations - such as the Rehabilitation Advisory Committee - is now in progress to enhance the code of practice to facilitate the fitting of stair-lifts in existing buildings where headroom is limited.

New guidelines for the design of amusement rides were also established in 2004 to facilitate access by the disabled.

Support to Building Owners

A new Lift Owners' Guidebook was published to promote a better understanding of lift maintenance among building and incorporated owners. It covers basic knowledge and legislative requirements, daily operation, handling of emergencies, contractual and maintenance issues, and renovation works.

Complementing the handbook, a series of safety talks and seminars reached more than 800 owners, incorporated owners, and representatives of property management companies.

Support to the Trade

The annual safety quiz for lift and escalator workers was again a success in 2004. It was a joint effort between EMSD and the Occupational Safety and Health Council, Vocational Training Council, Labour Department, and leading trade associations. In

addition to the Workers Safety Quiz, a series of seminars on safety at lift works and escalator works have also been organised. The first session was held in August 2004.

On another note, EMSD teamed up with the Building Department to provide guidance to authorised persons on completing building work for lift installations. Guidelines were also issued for the preparation of the operation and maintenance manual facilitating the smooth handover of maintenance of lift machinery from one contractor to another to ensure safety.

Registration for Vehicle Mechanics

The Government is considering introducing a registration scheme for the local vehicle maintenance trade. While mechanical defects are not regarded as a major contributory factor in road accidents, proper maintenance of vehicles is clearly an effective means of preventing accidents and enhancing road safety. In addition, sub-standard maintenance is a nuisance to vehicle owners and can also cause air pollution, with negative impacts on the health of the public.

Having reviewed the merits of and need for a regulatory scheme and having regard to the impact on service standards and also the level of acceptance and overall readiness of the trade, we have taken a progressive and balanced approach. In this way, we aim to minimise the financial impact of the scheme on the trade as well as to mitigate any negative impact on the employment situation. We propose to begin with a voluntary registration scheme for vehicle mechanics and to ensure there is sufficient flexibility to allow for adjustments to the scheme.



改良了的梯級升降機適用於有高度限制的地點安裝。

The enhanced stair-lift is designed for locations with limited headroom.



2004年再次舉辦升降機及自動梯工人安全問答比賽。

The second safety quiz for lift and escalator workers took place in 2004.

保障公眾安全

的負面影響。我們建議先實施自願性的車輛維修技工註冊計劃，確保有足夠的靈活性，能在日後對計劃作出調整。

我們發出諮詢文件，以蒐集意見，諮詢期已於2004年11月底結束。我們正仔細研究有關意見。此外，我們亦向車輛維修工場和技工進行意見調查，有關調查已於2004年12月完成，我們確保在實施建議的註冊制度前，考慮納入業界的建議。

科技交流

2004年，我們探訪多個內地和海外的升降機及自動梯製造商及業界組織，俾能知悉最新的升降機及自動梯設計和科技。我們又研究能否在本地運用這些科技。年內，本署派員出席了著名國際業界組織 PALEA 和 IAAPA 的年會，會議論題包括全球貿易趨勢，以及國際安全的最新發展。

香港迪士尼樂園

我們派出一個專責小組，到竹篙灣實地工作，為香港迪士尼樂園的機動遊戲機進行設計審批。審批工作已經完成。

東涌纜車

東涌纜車計劃的設計審批工作現已完成，我們並已檢查纜車的原型，並正作進一步改良，以改善座位的舒適度。

最長的室內自動梯

我們已完成本港最長室內自動梯的安全測試工作。該自動梯位於一間新開幕的商場，每小時能運送9,000名乘客。

安全檢查

為確保公眾安全，機電工程署負責監察全港逾45,000部升降機及6,000部自動梯、機動遊戲機、建築工地升降機及塔式工作平台的安裝、操作和維修。我們於2004年進行了超過7,900次巡查，並處理超過61,000份定期測試證明書。

至於本港的升降機及自動梯工程承建商和服務提供者的註冊方面，現時已有50間升降機工程承建商獲本署註冊，當中36間亦同時是註冊自動梯工程承建商。

機電工程署與政府各部門及市民通力合作，提供機電及氣體規管架構，以保障公眾安全。規管服務單位由經驗豐富的專業工程師、督察及技術人員組成，目標是確保公眾安全，並維持在高安全水平。我們負責執行有關安全使用電力、氣體、升降機及自動梯、機動遊戲機、架空纜車及公共交通工具的法例和編印工作守則及指引。我們亦就一系列機電安全的問題，擔任政府的技術顧問，並就有關的法例提供意見。這些工作由電力法例部、一般法例部及氣體標準事務處負責。



我們派員出席國際業界組織的年會，了解最新的國際安全標準和發展。
We attend annual meetings of leading international trade bodies for the latest updates on international safety standards.



藝術家筆下的東涌纜車。
An artist's impression of Tung Chung cable cars.

Protecting Public Safety

A consultation paper was published and feedback was collected during the consultation period which ended in November 2004. This feedback is now being reviewed. An opinion survey targeting vehicle maintenance workshops and mechanics was also completed in December 2004 to ensure that suggestions from the trade would be addressed prior to the implementation of the proposed registration system.

Technologies Exchange

In 2004, we paid visits to manufacturers and trade organisations on the Mainland and overseas in order to keep abreast of the latest designs and technologies in lifts and escalators. We also investigated the local application of these technologies. During the year, EMSD was represented at the annual meetings of PALEA and IAAPA, two of the leading international trade bodies, where world trends and important updates to international safety standards were discussed.

Hong Kong Disneyland

With a special taskforce working on-site at Penny's Bay, design approval for the amusement rides at Hong Kong Disneyland has been completed.

Tung Chung Cable Car

Design approval work for the Tung Chung Cable Car project is now complete. A prototype of the cable car has been inspected and further enhancement is now underway to improve passenger comfort.

Longest Indoor Escalator

We have completed the safety testing of the longest indoor escalator in Hong Kong. Located in a newly opened shopping mall, it can transport 9,000 persons per hour.

Safety Checks

In ensuring public safety, EMSD monitors the installation, operation and maintenance of more than 45,000 lifts and 6,000 escalators, in addition to amusement rides, builders' lifts and tower working platforms throughout Hong Kong. In 2004, we conducted more than 7,900 inspections, and processed more than 61,000 periodic test certificates.

As to the registration of contractors and service providers in Hong Kong, there are currently 50 lift contractors registered with EMSD, 36 of which are also registered as contractors for escalators.

At EMSD, we work closely with other government agencies and the community to provide a regulatory framework that will ensure public safety in electrical, mechanical and gas applications. With an experienced team of professional engineers, inspectors and technical officers, our aim is to achieve and maintain a high standard of public safety. We administer safety legislation and issue codes of practice and guidelines on the safe use of electricity, gas, and lifts and escalators as well as in such diverse areas as amusement rides, aerial ropeways and public transportation. We also act as a technical advisor to the Government on a range of safety issues and provide recommendations on the legislation necessary to ensure public safety. Our work in these areas is carried out by three divisions, namely the Electricity Legislation Division, the General Legislation Division and the Gas Standards Office.



為業界舉辦有關升降機及自動梯工程的安全研討會。

Seminars on safety at lift works and escalator works are organised for the trade.



工程師正為本港最長室內自動梯進行測試工作。

Our engineer is testing Hong Kong's longest indoor escalator.



宣傳單張有助推廣安全使用升降機及自動梯。

Informative pamphlets are published to promote the safe use of lifts and escalators.

推廣能源效益
**Promoting
Energy Efficiency**





「憑着過去十年累積的經驗，我們在能源效益方面的工作可更上一層樓。」

“Building on the experience we have gained over the past decade, we will achieve even more in our energy efficiency work in the future.”

推廣能源效益



「去年，我們為政府部門舉行的節約能源比賽反應熱烈。我們再接再厲，並於最近為私營機構推出一個類似的比賽。這些比賽的目的，是要表揚節能成果和良好節能方法，並讓參賽者能對比他們在能源效益和節約能源方面的工作成果。」

“The response to the energy saving competition for government departments last year was very encouraging. To maintain this momentum in energy saving, recently we have launched a similar award scheme for the private sector. These competitions serve to recognise achievements and best practices, and also benchmark efforts in energy efficiency and conservation.”

凌錦開 George K H Ling

總工程師(能源效益事務處)

Chief Engineer (Energy Efficiency Office)

研究本港使用風能

我們已展開一項風力測量計劃，在一些重要地點實地測量風力，以研究可否在香港使用風能。我們分別在柴灣政府物流中心的天台及砵甸乍山建立風力監測站，監測裝置高 50 米，在不同高度安裝多台風力計，以收集風力數據，供評估之用。風力計等量度儀器由太陽能電池板供電，收集到的數據經無線遙測系統傳送回機電工程署的辦事處。我們現正在東龍洲、伙頭墳洲和廟仔墩建立另外三所監測站。

為了推廣在本港使用風能，兩家電力公司亦打算進行示範計劃。他們會建造兩台風力發電機，讓公眾認識有關技術和評估本港的風力發電潛力。港燈現計劃在南丫島安裝功率高達 800 千瓦的風力發電機，中電則會在離島或新界建造功率相近的風力發電機。

推廣水冷式空調系統

推行冷卻塔先行性計劃是我們在香港推廣水冷式空調系統的主要措施之一。該計劃在去年進展良好。由於先行性計劃覆蓋的地區不斷增加，加上發展商及物業管理公司對較節能的蒸發式冷卻塔空調系統有更多的認識並對該計劃愈來愈感興趣，採用冷卻塔空調系統的申請大幅增加。

2004 年，我們收到共 78 宗申請，較 2003 年增加兩倍，涉及的總樓面面積為 430 萬平方米，預計在有關裝置落成後，每年可節省 5,200 萬度電，並使二氧化碳排放量減少 36,000 公噸。

採用冷卻塔空調系統的申請數目 Applications for the Adoption of Cooling Tower-type Air-conditioning Systems

年份 Year	2001	2002	2003	2004
申請數目 No. of Applications	4	4	28	78

為使本港廣泛採用水冷式空調系統，我們會為水冷式空調系統編製一系列工作守則。有關的顧問研究已在 2004 年展開，以便為冷卻塔式空調系統制定工作守則。這項研究會參考本地及國際在自願採用及規管推行冷卻塔方面的經驗，就建造、操作及保養冷卻塔，以及適用於本港的海外規例及程序，提供適當的指引。此外，亦會編製冷卻水處理服務供應商的名單，以及防腐蝕和抑制細菌所需的冷卻水處理化學品清單。

Promoting Energy Efficiency

Exploring Wind Energy

We have embarked on a field-based wind measurement programme in strategic locations to investigate the feasibility of harnessing wind energy in Hong Kong. Two wind monitoring stations have been set up – one on the roof of the Government Logistics Centre in Chai Wan and another on Pottinger Peak. The monitoring structures, measuring 50 metres in height, are equipped with anemometers at different elevations to gather data for assessment. The measurement instruments are powered by solar cells and the data collected is transmitted back to EMSD offices through a wireless telemetry system. Three more stations are being built in Tung Lung Chau, Town Island and Miu Tsai Tun.

As part of our drive to promote the wider application of wind energy in Hong Kong, the two power companies are also working on a demonstration project. Two wind turbines will be built to help the public appreciate and evaluate the potential of the technology for local application. Hongkong Electric is planning to install a wind turbine on Lamma Island with a capacity of up to 800kW, while CLP Power will erect a turbine of similar capacity on an outlying island or in the New Territories.

Supporting WACS Deployment

The Cooling Tower Pilot Scheme, one of our key initiatives in promoting Water-cooled Air-Conditioning Systems (WACS) in Hong Kong, has been progressing well in the past year. We are pleased to report an upsurge in the number of applications for the adoption of the more energy-efficient evaporative cooling tower-type air-conditioning system, due partly to the expansion of designated areas under the pilot scheme and partly to growing awareness and interest among developers and management companies. In 2004, we received a total of 78 applications - a two-fold increase over 2003 – involving a total floor area of 4.3 million square metres and a potential annual saving of 52 million kWh in energy consumption and a reduction of 36,000 tonnes of carbon dioxide emissions.

In a strategic step towards the territory-wide implementation of WACS in Hong Kong, we will compile a series of codes of practice for WACS. A consultancy study was commissioned in 2004 to formulate a code of practice for the cooling tower-type air-conditioning system. Making reference to both local and international experience in regulatory and voluntary implementation of cooling towers, the study will set out appropriate guidelines for the construction, operation and



「水冷式空調系統在香港越來越受歡迎，而冷卻塔式系統更是當中的佼佼者。採用這種節能空調系統的用戶顯著增加，反映出發展商和物業管理公司的節能意識不斷提高，對這種空調系統的興趣亦大增。」

“Water-cooled air-conditioning systems are gaining momentum in Hong Kong. Leading the way is the cooling tower type. The upsurge in the adoptions of this more energy-efficient air-conditioning system reflects growing awareness and interest among developers and management companies.”

林本華 Lam Poon-wah

總屋宇裝備工程師 (能源效益事務處)
Chief Building Services Engineer
(Energy Efficiency Office)

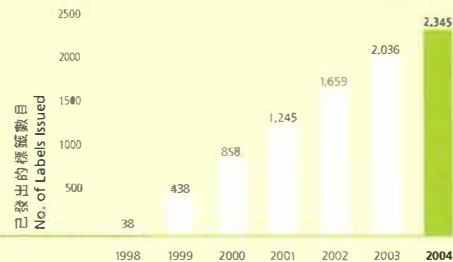
推廣能源效益

能源效益標籤計劃

能源效益標籤計劃在 2004 年再度擴展，加入 3 類產品，即電子鎮流器、電腦及住宅式即熱氣體熱水爐，使計劃涵蓋的產品增至 17 類。

這項計劃自 1995 年推出以來，備受業界及消費者歡迎，並促使市場淘汰能源效益較差的產品。能源標籤提供有關耗電量的資料，讓消費者在選購節能器具時能作出明智的選擇，這種標籤越來越受消費者的重視。

已發出的標籤累積數目
Cumulative Number of Labels Issued



可持續發展策略

身為可持續發展委員會策略工作小組轄下可再生能源支援小組的成員，機電工程署參考國際經驗和典範，協助訂定香港在應用可再生能源方面涉及的問題。我們負責提供技術意見和支援，協助該委員會在 2004 年制定「邀請及

能源效益標籤計劃
涵蓋的產品

家用器具

- 雪櫃
- 冷氣機
- 洗衣機
- 電動乾衣機
- 緊湊型節能熒光燈
- 儲水式電熱水爐
- 電飯煲
- 抽濕機
- 電視機
- 電子鎮流器
- 住宅式即熱氣體熱水爐

辦公室設備

- 影印機
- 多功能辦公室設備
- 鐳射打印機
- 電腦
- 液晶體顯示器

車輛

- 汽油載客車輛

Product Categories under
the Energy Efficiency
Labelling Scheme

Household appliances

- Refrigerators
- Room coolers
- Washing machines
- Electric clothes dryers
- Compact fluorescent lamps
- Electric storage water heaters
- Electric rice cookers
- Dehumidifiers
- Television sets
- Electronic ballasts
- Domestic gas instantaneous water heaters

Office Equipment

- Photocopiers
- Multifunction devices
- Laser printers
- Computers
- LCD monitors

Vehicles

- Petrol passenger cars

能源效益標籤計劃涵蓋的產品達 17 類。
The Energy Efficiency Labelling Scheme now covers 17 product categories.

Sustainable Development
A vision shared by the Hong Kong people.

機電工程署是可持續發展委員會策略工作小組轄下可再生能源支援小組的成員。
EMSD is a member of the Support Group on Renewable Energy under the Strategy Sub-committee of the Council for Sustainable Development.

Promoting Energy Efficiency

maintenance of cooling towers, and the application of overseas regulations and procedures in Hong Kong. The study will also list cooling-tower water treatment service providers and the water treatment chemicals needed for corrosion prevention and bacterial control.

Energy Efficiency Labelling Scheme

2004 was another productive year for the Energy Efficiency Labelling Scheme (EELS). It was extended to cover three additional product categories, namely electronic ballasts, computers and domestic gas instantaneous water heaters, bringing the total number of product categories under the scheme to 17.

The EELS has been well received by both the industry and consumers since its introduction in 1995. It has been instrumental in phasing out less energy-efficient products in the market. The Energy Label is highly regarded by consumers as it provides energy consumption information to help them make wise choices when selecting energy-efficient appliances.

Sustainable Development Strategy

EMSD is an active member of the Support Group on Renewable Energy under the Strategy Sub-committee of the Council for Sustainable Development. As such, we help to identify those issues in the field of renewable energy that are most relevant to Hong Kong, with reference to international experience and best practices. In 2004, the Council compiled a comprehensive

"Invitation and Response" document, with technical input and support from EMSD, and invited members of the public and stakeholders to take part in an interactive discussion, airing their opinions and exchanging views. The Council is now collating these responses and preparing a proposal for consideration.

Sustainability Assessment Tool for Buildings

To promote sustainable development in the construction industry, EMSD commissioned a consultancy study titled Life Cycle Energy Analysis (LCEA) of Building Construction. The study aims to assess the environmental impact and cost implications of building development over the course of construction, operation and demolition. This is the first time that the LCEA concept has been applied in Hong Kong.

The study has produced an assessment tool to help architects, designers and structural engineers to appraise, at the design stage, the life cycle costs and life cycle performance of all materials and components in a building. With user-friendly models and data entry templates, the tool facilitates objective comparisons of different building designs on the basis of total energy consumption, helping concerned parties to make more informed choices in the interest of sustainable development. It is our goal that LCEA will, over time, solicit a broad base of public support for sustainability in construction and buildings.



採用較節能的蒸發式冷卻塔空調系統的申請大幅增加。

There was an upsurge in the number of adoptions of the more energy-efficient evaporative cooling tower-type air-conditioning system.



為興建風力監測站訂定地點，以蒐集風力數據作評估用途。

Appropriate locations are identified for setting up wind monitoring stations to collect data for assessment.

推廣能源效益

回應」文件，並邀請公眾人士及相關團體參與討論，讓他們交流意見。委員會正在整理這些意見，以便提出建議，供各方考慮。

為建築物而設的可持續發展評估工具

為了在建造業推廣可持續發展，我們委託顧問公司進行名為「建築物物料的使用壽命能源分析」的研究。這項研究旨在評估建築物在興建、運作及拆卸的過程中對環境的影響和涉及的能源開支。這是首次在本港應用使用壽命能源分析的概念來進行的研究。

有關研究提供評估工具，幫助建築師、設計師和結構工程師在設計階段評估建築物所有材料及組件在使用周期內的成本和表現。這套工具具備容易使用的模擬系統及數據輸入範本，讓使用者根據總能源消耗量客觀比較各種建築物設計，並協助有關人士以可持續發展為前提，作出更明智的選擇。我們的目標是令社會人士廣泛接受使用壽命能源分析的概念，從而促進建造業和建築物的可持續發展。

批准鋪設天然氣管道

政府已批准兩家公用事業公司——香港中華煤氣有限公司及香港電燈有限公司鋪設天然氣管道，以推廣在本港使用天然氣作生產煤氣及發電用途。

上述兩家公司會從深圳經海底管道輸入天然氣，從而為生產電力和煤氣提供另一種的燃料。管道連接深圳的液化天然氣站，該氣站將在2006年開始運作。天然氣是較環保的燃料，產生的廢氣較少，故使用天然氣預料對本港環境大有裨益。

小巴改用石油氣

現時已有超過1,400輛小巴參加改用石油氣資助計劃，約佔在路面行駛小巴總數的23%。

截至2004年12月止，全港18,000輛的士已全部採用石油氣，投入服務的石油氣加氣站則有50個，並有超過900名曾受訓的註冊技工。

能源效益事務處於1994年成立，宗旨是在香港推動能源效益及節約計劃。能源效益事務處的工作結合了我們對最新科技的了解，以及對香港社會需求的認識。能源效益事務處負責制定指引及出版工作守則，並積極參與研究有效使用及節約能源的工作小組及相關的委員會。為了協助香港節省能源和保護、保存及改善環境，我們推行了多項措施，包括推行能源管理、管理層能源培訓課程、制定基準、推行能源效益標籤計劃和能源需求管理計劃。能源效益事務處亦率先使用創新的節能科技，特別是空調、照明和升降機及揚動機的控制系統。我們在這方面的成績，有助香港的可持續發展。

兩家電力公司計劃興建風力發電機作示範用途。

The two power companies are planning to build wind turbines for public demonstration purposes.



全港逾兩成小巴已採用石油氣。

More than 20 per cent of light buses have switched to LPG.

Promoting Energy Efficiency

Natural Gas Pipelines Approved

With a view to furthering the use of natural gas for gas manufacturing and power generation in Hong Kong, the Government has approved the building of natural gas pipelines by the two local utilities companies, Hong Kong and China Gas Company Limited and Hongkong Electric Co., Ltd.

The two companies will import natural gas as an alternative fuel source via submarine pipelines from a liquefied natural gas terminal in Shenzhen that is scheduled to commence operation in 2006. As natural gas is a cleaner fuel with fewer emissions, its use is expected to bring environmental benefits to the territory.



Light Buses Go for LPG

More than 1,400 light buses, representing 23 per cent of light buses on the road, joined the incentive programme and switched to LPG models.

As of December 2004, all 18,000 taxis in Hong Kong were running on LPG, and there were 50 filling stations in service, and more than 900 trained mechanics registered with EMSD.

The Energy Efficiency Office was established in 1994 to spearhead the drive for energy efficiency and conservation programmes in Hong Kong. We combine an in-depth understanding of the latest technological breakthroughs with knowledge of the precise needs of the Hong Kong community. The Office works to establish guidelines and issue codes of practice, and is actively involved in working groups and related committees that investigate the efficient use and conservation of energy. To help Hong Kong save energy and protect, sustain and improve its environment, we have implemented a range of initiatives, including Energy Management and Demand Side Management programmes, energy end-use database management, benchmarking, and an energy efficiency labelling scheme. The Office is also engaged in pionet and escalator control systems. Our successes in this direction will contribute to the sustainable development of Hong Kong.



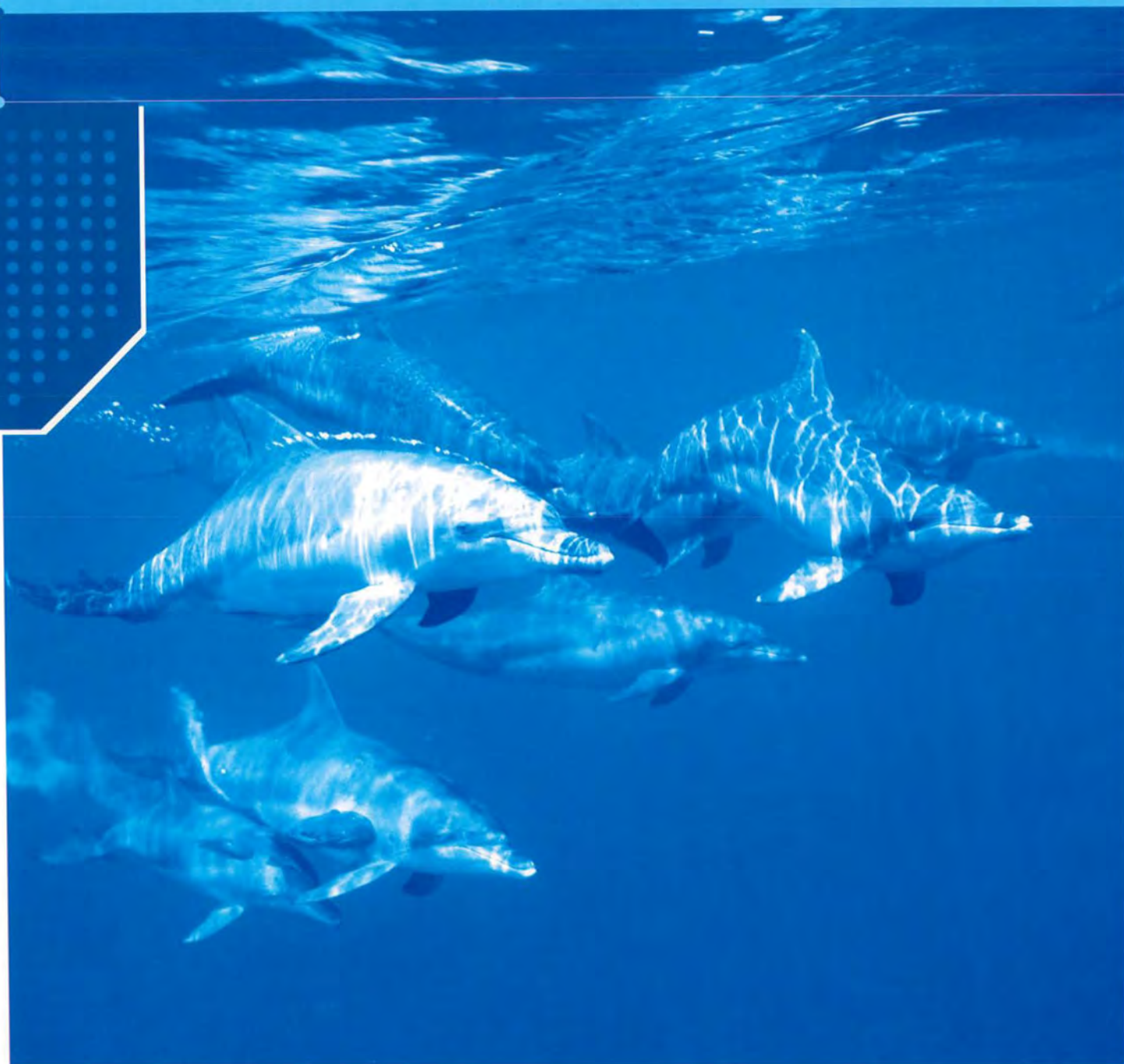
-  海底管道往大埔煤氣廠
Submarine Pipeline to Tai Po Gas Production Plant
-  海底管道往港燈南丫發電廠
Submarine Pipeline to HEC Lamma Power Station

兩家公用事業公司將從深圳經海底管道輸入天然氣作生產煤氣及發電用途。

Two utilities companies will import natural gas from Shenzhen - via submarine pipelines - for gas manufacturing and power generation.

提高公眾安全
及節能意識

**Raising Public
Awareness**





「我們的工作不時需要發揮創意，而從事社區外展等宣傳工作的員工更絕不能因循守舊。」

“Creativity is an important job skill for many of us, and especially so for those engaged in community outreach.”

提高公眾安全及節能意識

機電安全香港通 2004

2004年，我們第四次舉辦機電安全香港通運動，這是公營部門和私營機構合辦的最大型和最成功公眾教育活動之一。

這項運動之所以這麼成功，是因為我們每年都能推陳出新，採取多樣化的宣傳手法。2004年的活動包括舉辦學生日營，透過多種宣傳渠道（包括電視、電台和報章）進行宣傳，並首次利用公共交通工具，成功向廣大市民宣揚安全信息。

這項運動也包括一個在周末舉行的戶外嘉年華會，我們在會場內設置具教育意義的遊戲攤位，並向市民派發宣傳單張。今年的嘉年華會延長至兩天，吸引了逾12,000名市民參加。

2004年的機電安全香港通再次得到香港主要機構和行業商會的鼎力支持。這些機構和商會來自公用事業、公共交通、屋宇物業管理和機電界，計有香港加德士有限公司、中國檢驗有限公司、華潤石油氣有限公司、中華電力有限公司、埃克森美孚香港有限公司、香港中華煤氣有限公司、香港電燈有限公司、香港房屋委員會、香港國際機場、港九電器商聯會、香港液體氣(集團)有限公司、香港電車有限公司、九廣鐵路公司、電梯業協會、地鐵有限公司和香港蜆殼有限公司。

能源效益獎

我們在2003年為政府部門舉辦節能比賽，各部門反應熱烈。因此，我們在2004年又為私營機構舉辦香港能源效益獎比賽。這項比賽與公營部門的比賽一樣，提倡採用最佳節能方法，並確認必須提升能源效益及節約能源，才能達到可持續發展的目標。

比賽為期一年，讓私營機構有機會在節約能源方面作出努力，並制定基準，找出需要改善的地方。物業管理公司和學校獲邀參加這項比賽。撰寫本文時，參賽機構數目已超過300家。

社區宣傳活動

為了把安全信息傳達至社區，我們出版了一份名為「機電與我」的通訊，以家庭雜誌的形式提供家居機電安全實用貼士。我們把這份通訊設計成一份消閒刊物，並於2004年5月出版創刊號，分發到全港各區數萬個家庭和學生，大受市民歡迎。

我們在2004年展開的另一項社區活動，是與一份主要中文報章合辦專欄，每周刊登一次。我們邀請公眾提出機電方面的問題，本署的工程師會作答及提供專業意見。市民反應熱烈，我們收到的問題涉及不同範疇，例如電線接地、電氣產品的保養、購買氣體用具的要訣、如何安全使用機動遊戲機等等。



能源效益獎開幕儀式的主禮嘉賓參觀現場展品。

Officiating guests touring the exhibits at the launching ceremony of the Energy Efficiency Awards.



我們連續四年舉辦機電安全香港通運動。

The E&M Safety Campaign has moved into its fourth year.



「機電與我」和刊載於報章的「機電安全信箱」專欄都是2004年宣傳活動的新猷，旨在將安全信息傳達至社區的不同層面。

E&M Safety Newsletter and the weekly column published in a local newspaper were among the new initiatives in 2004 designed to convey safety messages to the different strata of the community.

Raising Public Awareness

E&M Safety Campaign 2004

Moving into its fourth year in 2004, the E&M Safety Campaign is one of the largest and most successful collaborations between the public and private sectors in public education.

Part of its success must lie with the array of new ideas that enliven it each year. The 2004 campaign featured student day camp activities and a range of publicity channels, including television, radio, newspapers and, for the first time, public transport, to successfully bring our safety messages to a broad cross-section of the community.

It also featured an outdoor carnival with educational game booths and informative leaflets. The carnival was expanded into a two-day event and attracted more than 12,000 people over the weekend.

In 2004, the campaign was again supported by leading organisations and trade associations from Hong Kong's utilities, public transport, housing and estate management sectors, and the electrical and mechanical field. They were: Caltex Oil Hong Kong Limited, China Inspection Company Limited, China Resources Gas Company Limited, CLP Power Hong Kong Limited, ExxonMobil Hong Kong Limited, the Hong Kong and China Gas Company Limited, the Hongkong Electric Co., Ltd., Hong Kong Housing Authority, Hong Kong International

Airport, Hong Kong & Kowloon Electrical Appliances Merchants Association, Hong Kong L. P. Gas (Holdings) Limited, Hongkong Tramways Limited, the Kowloon-Canton Railway Corporation, the Lift and Escalator Contractors Association, the MTR Corporation, and Shell Hong Kong Limited.

Energy Efficiency Awards

In view of the overwhelming response to the energy saving competition designed for government departments in 2003, we created the first Hong Kong Energy Efficiency Awards for the private sector in 2004. Like the public sector competition, this is an award scheme that promotes best practices and recognises achievements in energy efficiency and conservation as a prerequisite to sustainable development.

The one-year competition provides an opportunity for the private sector to measure and benchmark its efforts in energy efficiency and conservation, as well as to identify areas for improvement. Property management companies and schools were invited to take part in the competition. At the time of writing, more than 300 entries had been received.

Community Outreach

In a bid to reach out to the community, we have developed the E&M Safety Newsletter to provide handy tips on home-

based E&M safety in a family-friendly format. Designed as a leisure read, the first issue was published in May 2004 and distributed to tens of thousands of households and students throughout the territory. The response was extremely positive.

Another community outreach initiative in 2004 was the creation of a weekly column published in a major Chinese-language newspaper. Members of the public are invited to post questions in the E&M field, and our engineers provide professional answers and advice. Enquiries have covered a wide range of topics, from electrical earthing to maintenance of electrical products, and from tips on purchasing gas appliances to the safe use of amusement rides. The response was overwhelming.

School Outreach

Students remained the major target of our public education programme in 2004. To date, our various school programmes have reached over 60,000 students at pre-school, primary, secondary and university levels. We hope these young people will serve as ambassadors of our safety and environmental messages, sparking discussion and interest among their families and friends.

提高公眾安全及節能意識

Raising Public Awareness

學校外展活動

2004 年，學生依然是我們的公眾教育活動的主要對象。至今，我們已透過多項學校活動接觸逾 60,000 名學生，包括幼稚園及大中小學學生，希望他們會把我們傳達的安全和環保信息帶給家人和朋友。

講座、研討會和展覽

年內，我們繼續進行行業和公眾教育活動，並得到多個行業商會和政府部門的支持，舉辦連串安全講座和研討會。我們利用展品和互動遊戲，示範怎樣安全使用家庭電器、升降機和自動梯。

我們又聯同物業管理公司和社區組織，為公營部門和私營機構舉辦多個能源講座，包括向物業管理公司的前線人員講解節能方法，以及為中小學教師安排能源效益講座。

機電工程署其中一項主要任務是保障市民免受電力、機械及氣體意外或事故傷害。我們負責執行安全法例，並且推行各種安全標準和守則。此外，我們亦積極推廣能源效益。公眾教育是我們工作的重要環節，我們致力提高公眾對有關問題的認識，並鼓勵市民遵從安全守則。我們透過多種渠道將安全信息帶給公眾，包括出版刊物、進行推廣及宣傳活動、派發海報及郵件，舉行嘉年華會、巡迴展覽、遊戲、比賽及問答遊戲，以及舉辦安全講座和研討會等。

Talks, Seminars and Exhibitions

With the support of various trade associations and government departments, we continued with safety talks and seminars as part of our trade and public education programme in 2004. Exhibits and interactive games were displayed to demonstrate the safe use of household appliances as well as lifts and escalators.

We also joined forces with building management companies and community organisations in a series of energy talks for both the public and private sectors. These included discussions with the frontline staff of estate management companies to share energy saving tips, as well as lectures on energy efficiency for primary and secondary school teachers.

A key role of EMSD is keeping the public safe from electrical, mechanical and gas accidents or incidents. We implement and enforce safety legislation and have introduced a wide range of safety standards and practices. We are also actively involved in promoting energy efficiency. Public education is an important aspect of our activities as we work to foster awareness of the issues involved and to reinforce safety practices within the community. We take this message to the community through a number of different channels, including publications, promotional and advertising campaigns, posters and mail-outs, carnivals and road shows, games, contests and quizzes, and safety talks and seminars.

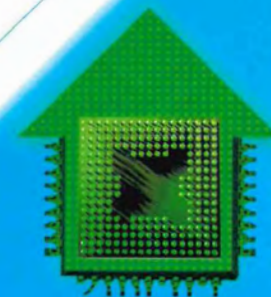
著名卡通人物「Snoopy / 史諾比」獲委任為 2004 年機電安全大使，印有「Snoopy / 史諾比」的機電安全宣傳品深受市民歡迎。

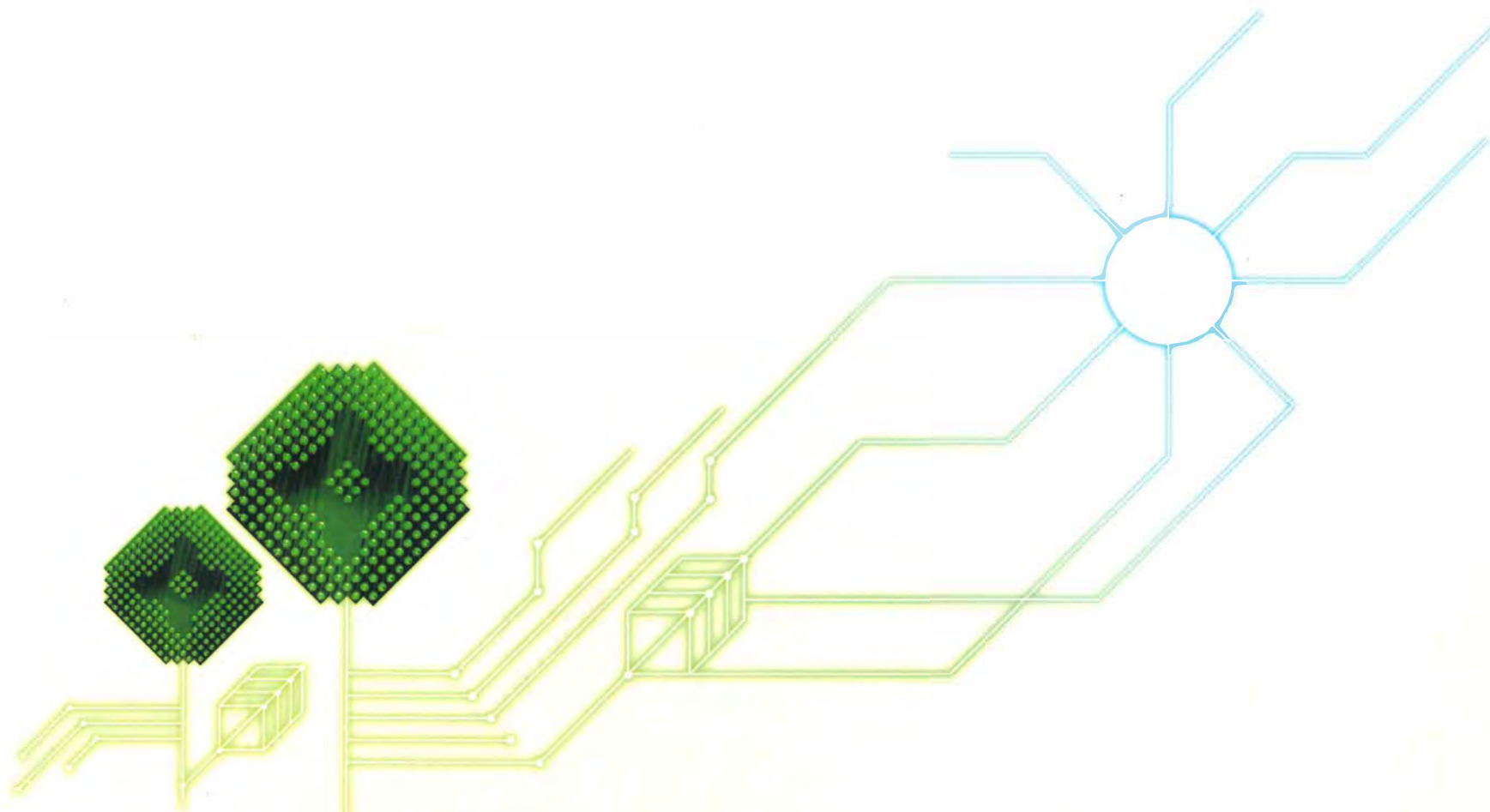
World-renowned celebrity character Snoopy has been appointed E&M safety ambassador for 2004. Publicity materials featuring this global character are well received by the public.

註：機電工程署獲授權使用有關卡通人物。

Note: EMSD has obtained authorisation to use the cartoon character.

科技節能易安居
**TECHNOLOGIES
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GREENER HOMES**





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