# 安全節能在香港

# A Safe and Energy Efficient Hong Kong









機電安全與能源效益是機電工程署規管服務的核心工作。這雙支柱 為香港市民的生活質素作出貢獻。

E&M safety and energy efficiency are at the core of Regulatory Services functions at the Electrical and Mechanical Services Department. The twin pillars contribute to the well-being and quality of life in Hong Kong.

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# Vision, Mission and Values

# **Vision**

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.

# **Mission**

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.

# Values

- Expertise
- Integrity
- Reliability
- Commitment

# 抱負

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。

# 便命

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。



- 專業才能
- ・誠信
- ●可靠
- 承擔

# 重要活動

# **Achievements and Initiatives**



#### 推出新電線顏色代碼

2007年的成就之一,是本港順利推行固定電力裝置新電線顏色代碼。新代碼已於2007年7月1日生效。實行新代碼不但使香港與國際標準及慣例看齊,也是我們與業界多年來攜手進行籌備工作的成果。

有關新代碼的培訓工作也進行得如火如荼,令人鼓舞。至2007年12月底,全港超過82%的註冊電業工程人員,已透過不同途徑完成培訓課程,包括機電工程署總部的電線顏色代碼訓練中心、及機電工程署網站的新顏色代碼網頁等。

# New Cable Colour Code Launched

A major achievement in 2007 was the smooth implementation of the new cable colour code (CCC) for fixed electrical installations in Hong Kong, which took effect on 1 July, 2007. The move aligns Hong Kong with international standards and practices, and marks the successful outcome of years of preparation and collaborative effort with the trade.

Training is gaining momentum, which is particularly encouraging. Up to the end of December 2007, over 82 per cent of registered electrical workers have completed their training via various channels, including the CCC Training Centre at EMSD headquarters and the CCC web corner on the EMSD website.

#### 推出「車輛維修技工自願註冊計劃」

「車輛維修技工自願註冊計劃」於 2007 年 1 月推出 業界反應十分熱烈。至 2007 年底,接近 6,000 名技工已申請註冊,佔全港車輛 維修技工大約六成。其中 3,400 多名車輛維 修技工已成功註冊。

踴躍的反應,證明業界十分支持註冊計劃, 以提高車輛維修行業的專業形象與服務 水平。計劃將於2008年進行檢討,決定未來 的發展方向。

# **Voluntary Registration Scheme** for Vehicle Mechanics Launched

Launched in January 2007, the Voluntary Registration Scheme for Vehicle Mechanics has met with great enthusiasm from the trade. Up to the end of 2007, nearly 6,000 vehicle mechanics, accounting for around 60 per cent of vehicle mechanics in Hong Kong, have applied for registration, of whom 3,400 have been successfully registered.

The good response indicates that the trade is supportive of the Scheme which aims at raising both professional and service standards of the trade. The Scheme will be reviewed in 2008 and its future development will be determined.





# 能源效益標籤立法進行中

《能源效益(產品標籤)條例草案》已於 2007年提交立法會·條例草案委員會正進行 審議。

第一階段的強制性能源效益標籤計劃會涵蓋 3類家用電氣產品:冷凍器具、空調機及緊 湊型熒光燈(即慳電膽)。第一階段計劃實施 之後,估計每年可節省1.5億度電及減少排放 105,000公噸二氧化碳。

# **Energy Efficiency Labelling Legislation in Progress**

The Energy Efficiency (Labelling of Products) Bill for implementing the proposed mandatory Energy Efficiency Labelling Scheme was introduced to the Legislative Council in 2007, and is being scrutinised by the Bills Committee.

This first phase of the mandatory scheme will cover three electrical products, namely refrigerating appliances, room air conditioners and compact fluorescent lamps. Once enacted, the scheme is expected to bring about an energy saving of 150 GWh and a reduction of 105,000 tonnes of carbon dioxide emissions a year.

#### 氣體安全紀錄良好

年內的氣體安全數字相當良好。第三者損毀地下氣體喉管事故由2006年的14宗下降至2007年12宗的新低:香港在致命氣體事故方面的安全紀錄是全球最佳之一,每百萬人0.1宗,是全球第二低,僅次於日本的每百萬人0.05宗。

與此同時,我們也加強了有關洗衣店燃氣乾衣機的安全工作,提倡正確的安裝、檢測及維修保養。內部方面,我們轉用了風險管理的模式進行氣體安全工作,調配更多資源去處理較易發生事故的設施。

#### **Good Gas Safety Record**

The past year saw some outstanding gas safety statistics. Reports of third-party damage to underground gas pipes decreased from 14 incidents in 2006 to 12 incidents in 2007, a record low. In terms of fatal gas incidents, Hong Kong has one of the best safety records in the world at 0.1 incidents per million population, second only to Japan with 0.05 incidents per million population.

At the same time, additional efforts were made to promote the proper installation, inspection and maintenance of gas dryers in commercial laundries. Internally there has also been a shift to a risk-based approach to gas safety work, so that more resources can be directed to facilities more prone to incidents.





# 公眾安全及節能意識上升

我們在2007年委託了顧問公司進行有關市民機電安全和節能意識的問卷調查,結果顯示市民在多個範疇的意識都頗高。例如約85%受訪者在有關正確維修保養電氣產品的問題取得滿分,97%受訪者知道罐裝噴霧產品須於空氣流通的地方使用,95%受訪者知道不應在移動的自動梯上行走,而92%受訪者知道不應在自動梯上攜帶大型物件、嬰兒車或手推車。

令人鼓舞的是,今次調查顯示兒童及十多歲的受訪者,正確意識相當高,證明我們過去 幾年主動走進各個社群加強溝通、特別是為 年青一代做的教育工作,漸見成效。

#### **Public Awareness on the Rise**

A questionnaire survey we commissioned in 2007 to track the general public's awareness of E&M safety and energy efficiency indicated good results in many areas. Some 85 per cent of respondents scored full marks for questions on proper maintenance of electrical appliances; 97 per cent of respondents were aware that bottle aerosol products should be used in well-ventilated areas; 95 per cent understood that they should not walk on escalators; and 92 per cent knew that they should not use escalators to carry heavy goods, baby strollers or trolleys.

It is also heartening to see high levels of awareness among teenage and child respondents. The findings indicate that our strategy of communicating proactively with different segments of the community, in particular the younger generation, is producing results.

#### 獎項與嘉許

規管服務多個團隊年內獲得政府獎項,包括在2007年「公務員優質服務獎勵計劃」中, 贏得創新意念類別亞軍的電力法例部及科技 應用類別優異獎的能源效益事務處。一般法 例部一位工程師也獲得2007年申訴專員嘉許 獎(優異服務組別)。

此外,能源效益事務處設計及製造的一輛可再生能源車,更在「2007應用可再生能源設計暨競技大賽」中贏得「最佳操控獎」金獎。車輛運用太陽能光伏板發電。

#### **Awards and Recognition**

Regulatory Services won several awards within the Government in 2007. Staff teams that won awards in the Civil Service Outstanding Service Award Scheme 2007 include the Electricity Legislation Division, which was first runner-up in the Innovation Award, and the Energy Efficiency Office, which won a merit award in the Application of Technology category. An engineer from our General Legislation Division was one of the winners of the Ombudsman's Awards 2007 for Officers of Public Organisations.

In addition, a renewable energy powered vehicle designed and fabricated by the Energy Efficiency Office won the Gold Award for Best Maneuvering in the Hong Kong Technology & Renewable Energy Events held in 2007. The vehicle uses photovoltaic panels to generate power.





# 高層管理人員 **Senior Management**

會計師

吳鴻成

部門會計師

Accountant Ng Hung-shing, Robin Departmental Accountant 助理署長

薛永恆

助理署長/能源效益

**Assistant Director** Sit Wing-hang, Alfred

Assistant Director / Energy Efficiency

副署長

陳鴻祥太平紳士

副署長/規管服務

**Deputy Director** Chan Hung-cheung, Stephen, JP Deputy Director / Regulatory Services



# 署長

何光偉太平紳士

機電工程署署長

Director

Ho Kwong-wai, JP

Director of Electrical

Director of Electrical and Mechanical Services 助理署長

陳帆太平紳士

助理署長/氣體及一般法例

Assistant Director Chan Fan, Frank, JP

Assistant Director /
Gas & General Legislation

秘書

莊國輝

主任秘書

Secretary

Chong Kwok-fai, Bernard

Departmental Secretary



要把握未來的機會,我們必須成為「精明」的規管機構,由注重工作數量轉為注重工作成效和 退體影響。

To capture the opportunities ahead, we must become a "smart" regulator, and shift our focus from output to outcome and impact.

# 署長的話 Message from the Director

#### 線覽

總結2007年,我很高興見到機電工程署的規管服務,繼續 使香港成為更安全和更具能源效益的大都會。年內,各種 機電事故數字持續減少,各式各樣的能源效益活動也有良好 進展。

2007年,有關氣體固定裝置及石油氣車輛的事故無大變化,而第三者損毀地下氣體喉管事故則持續減少,由2006年的14宗下降至2007年的12宗,電力事故則維持在2006年的水平。至於電氣產品方面,雖然進口產品的數量和種類越來越多,但有申報的電氣產品事故,則由2006年的68宗降至2007年的62宗,創出新低。與此同時,電纜遭第三者損毀的事故也創新低,由2006年的92宗降至2007年的75宗。機械安全方面,香港鐵路公司(港鐵)車站的自動梯事故有增加,可能與乘客行為有關,情況正在研究和處理中。

2007年6月發生的昂坪360事故,我們已完成調查工作,並於調查過程中得到港鐵的全力合作及海外專家提供意見。我們對纜車系統各方面的安全運作,都必須完全滿意,才會批准重開系統。系統在通過一連串的嚴格安全測試後,已於2007年12月31日重開。

至於海洋公園的架空纜車系統,年內的安全紀錄良好。

#### 「優質城市 優質生活」的願景

行政長官在2007/08施政報告中,勾劃出對「優質城市、 優質生活」的願景,並提出多項政策措施,以減少溫室氣體 排放、降低能源強度、及提倡使用清潔能源等。

我們以具體行動支持這些政策,包括強制性能源效益標籤計劃(第一階段)。計劃涵蓋 3 類家用電氣產品:冷凍器具、空調機及緊湊型熒光燈(即慳電膽)。這 3 類產品的用電量共佔全港住宅用電量的七成以上。我們估計強制性計劃每年可節省1.5 億度電及減少排放 105,000 公噸二氧化碳。第一階段計劃的立法程序仍在進行中,但我們已開始籌劃第二階段的工作,希望計劃將來可涵蓋更多類型的電氣產品。



昂坪360纜車系統通過嚴格的安全測試後,已於2007年12月31日重開。 Ngong Ping 360 was re-opened on 31 December 2007 after satisfying stringent safety requirements.





#### **OVERVIEW**

As the year 2007 draws to a close, I am happy to report that our Regulatory Services has once again helped to make Hong Kong a safer and more energy efficient city. The downward trend in most E&M-related incidents continued this year. At the same time, we have continued to emphasise energy efficiency, with many and varied programmes making good progress on strong momentum.

The number of gas incidents related to fixed installations and LPG vehicles held steady in 2007, while incidents of third-party damage to underground gas pipes continued to decline from 14 in 2006 to 12 in 2007. Electrical incidents remained at 2006 levels. Despite the increasing number and variety of electrical products coming into the market, reported cases of electrical product incidents declined from 68 in 2006 to 62 in 2007, a record low. At the same time, incidents of third-party damage to electricity supply lines also reached a record low of 75 in 2007, down from 92 in 2006. With regards to mechanical safety, an increase in the number of escalator incidents at MTR stations, which is thought to be the result of passenger behaviour, is being investigated and addressed.

Investigations into the Ngong Ping 360 incident that took place in June 2007 have now been completed with the full cooperation of MTR Corporation and input from overseas experts. We must be fully satisfied with every aspect of the system's safety performance before authorising its re-opening. After satisfying a series of stringent safety tests, the system was re-opened on 31 December 2007.

The other aerial ropeway system at Ocean Park has maintained a good safety record during the year.

#### **VISION FOR A "QUALITY CITY, QUALITY LIFE"**

In his 2007/08 Policy Address, the Chief Executive outlined his vision for a "Quality City and Quality Life", with policy initiatives to reduce emissions and energy intensity and to promote the use of clean fuel, among others.

We support these policies through a number of specific initiatives, including the mandatory Energy Efficiency Labelling Scheme (first phase). It will cover three household electric



我們與國家質檢總局,已訂立另一個為期4年至2011年的合作安排。 EMSD has entered into another four-year cooperation arrangement with AQSIQ, ending in 2011.



政府於2007年12月就強制執行《建築物能源效益守則》的建議・展開公眾諮詢。Government began public consultations in December 2007 on the proposed mandatory implementation of Building Energy Codes.

另一行動是有關強制執行《建築物能源效益守則》的建議。 建築物消耗的能源,佔本港最終用電量的89%,而一幢典型 辦公室樓宇的耗能量,約八成是用於空調、照明、電力系統 及升降機。我們估計,用法例去控制新建築物的耗能量, 首10年的節能幅度可達28億千瓦小時,並減排196萬公噸 二氧化碳。為了廣徵公眾對建議立法安排的意見,一個為期 3個月的公眾諮詢已於2007年12月展開。

香港政府已作出承諾,會履行 2007 年 9 月在悉尼發表的「亞太經合組織領導人關於氣候變化、能源安全和清潔發展的宣言」,達至在 2030 年前,將能源強度在 2005 年的基礎上至少降低 25%。我們會全力支持政府達成目標。為此,我們的能源效益事務處會不斷努力,尋求最有效的科技和方法,協助公營機構和商界減少耗能。

#### 量度公眾意識

我們對市民大眾的安全和節能意識一直都有追蹤研究,比如 2007年我們就委託了顧問公司進行問卷調查。 調查顯示,市民對機電安全和能源效益一般有頗高意識。部份問題有超過95%的受訪者答案正確,其他範疇也有超過九成的受訪者答案正確。結果證明了我們近年以大量宣傳活動去主動教育公眾和業界、保持緊密溝通的策略,漸見成效。我們在社區外展、業界合作和公眾教育方面會繼續努力。

#### 把握機會

由於市民對生活質素要求越來越高,期望有更安全更清潔的環境,我認為規管服務未來有極大的發展空間。不過,要滿足和超越市民不斷提高的期望,也是一個挑戰。為了達成使命,我們必須不斷提升員工的知識水平,例如在能源管理及可再生能源方面,並給員工機會去學習更多新科技。

## 做個精明規管機構

要把握未來的機會,我們必須成為「精明」的規管機構,由注重工作數量轉為注重工作成效和具體影響。對內而言,這涉及調校我們慣用的量度制度和表現指標。對外而言,這表示我們要擴大自己的角色,不單要執法,還要協助市民大眾去守法,而與業界及其他持份者的關係,也應由對立而轉向協作,多進行溝通並聯手舉辦教育宣傳活動。

products – refrigerating appliances, room air conditioners and compact fluorescent lamps – which together account for more than 70 per cent of Hong Kong's residential electricity consumption. We estimate that this mandatory Scheme can save 150 million kWh of electricity annually and reduce carbon dioxide emissions by 105,000 tonnes per year. While legislative work for phase one continues, we are also planning for phase two, when the Scheme will be extended to cover a greater range of electric products.

Another initiative is the proposed mandatory implementation of the Building Energy Codes. Energy consumed by buildings accounts for 89 per cent of total electricity enduse consumption in Hong Kong, while almost 80 per cent of energy consumed in a typical office building is used for airconditioning, lighting, electrical systems and lifts. We estimate that controlling the energy efficiency of new buildings via legislation will result in energy savings of 2.8 billion kWh in the first decade, and a reduction of 1.96 million tonnes of carbon dioxide emissions. To collect views and feedback on the proposed mandatory arrangement, a three-month public consultation began in December 2007.

We are also committed to supporting the Government in achieving its goal of reducing Hong Kong's energy intensity by at least 25 per cent by 2030 (with 2005 as the base year), as pledged in the APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development adopted in Sydney in



September 2007. To this end, our Energy Efficiency Office will continue to identify technologies and techniques to help the public and private sectors reduce energy consumption.

#### **PUBLIC AWARENESS MEASURED**

As part of our on-going tracking and monitoring of public awareness of E&M safety and energy efficiency, we commissioned an independent quantitative survey during 2007.

The survey findings indicate fairly high awareness of safety and energy efficiency concepts. In some areas of enquiry, more than 95 per cent of respondents gave correct answers, with other areas eliciting correct responses from more than 90 per cent of those surveyed. These findings confirm our approach over the past few years, namely the use of extensive publicity programmes to educate and communicate with the public and trades. We shall now sustain the momentum in our community outreach and collaboration, and public education work.

#### **CAPTURING OPPORTUNITIES AHEAD**

I see enormous opportunities for our Regulatory Services, in that our citizens will continue to expect better quality of life in a safer and cleaner environment. At the same time, meeting and exceeding these rising expectations is always going to be a challenge. To live up to our mission, we must continue to update our people's knowledge of areas such as energy management and renewable energy and provide opportunities for them to gain expertise in the latest technologies.

## **BECOMING A SMART REGULATOR**

To capture the opportunities ahead, we must become a "smart" regulator, and shift our focus from output to outcome and impact. Internally, this involves adjusting our measurement metrics and performance indicators. Externally, it means broadening our role from merely enforcing the law to facilitating the public to comply with the law, and moving from confrontation to collaboration as we engage with the trades and other stakeholders in joint communication and awareness-building programmes.

# 10 機電工程署規管服務 2007 年業務概覽 署長的話



機電工程署規管服務由2008年起,將增添鐵路安全的職責。 Railway safety will be added to the portfolio of EMSD Regulatory Services in 2008



柯偉雄工程師獲得2007年申訴專員嘉許獎(優異服務組別)。 Mr Or Wai-hung, one of our engineers, received the Ombudsman's Awards 2007 for Officers of Public Organisations

其實我們近年已朝此方向發展,並做出具體成績。規管服務 比以前不但變得更以客為本,而與業界協作的模式,更能防 範意外於未然,並減少違法事故,對各方面都有利。

## 繼續與國內機構合作

提到協作,我們與國家質量監督檢驗檢疫總局(國家質檢總局)的 2003-2007《機電產品安全合作安排》,剛已屆滿,而雙方已訂立另一個為期 4 年至 2011 年的《合作安排》。過去 4 年的合作,成果豐富,例如進行了定期交流培訓、並就家用電氣及氣體產品、升降機及自動梯、能源效益等範疇成立了通報機制。我們相信未來 4 年的合作成效必會同樣出色。

#### 新發展

年內也見數項重要的新發展。我們於2007年1月推出了「車輛維修技工自願註冊計劃」,業界反應十分積極。至2007年底,3,400多名車輛維修技工已成功註冊,我們預計勢頭會持續下去。註冊計劃並附有專業守則及相關的表現追蹤制度,以提高車輛維修行業的專業形象與水平。註冊計劃將於2008年進行檢討,屆時將考慮的方案之一,是應否推行強制註冊。

內部方面,待立法會批准,我們將於2008年2月成立新的 鐵路科\*。鐵路科會接手目前香港鐵路視察組的職能,而行政上 則納入機電工程署。具體來說,鐵路科的工作包括規管港鐵 營運的所有鐵路線及新鐵路線、香港纜車及山頂纜車、及 機場管理局在機場客運大樓的旅客捷運系統。這是個可喜的 發展,與我們現有的機電安全規管專長也是十分恰當的配合。

# 員工出色表現備受認同

規管服務2007年也獲得政府的數個獎項,我謹向在2007年「公務員優質服務獎勵計劃」獲獎的員工道賀,包括贏得創新意念類別亞軍的電力法例部、及科技應用類別優異獎能源效益事務處。此外,一般法例部一位工程師更獲得2007年申訴專員嘉許獎(優異服務組別)。我相信這些同事的出色典範,定能啟發其他同事,在各自的崗位多走一步,做得更好。

最後我想向規管服務全體同事致意,感謝大家過去一年的貢獻。我也感謝一直支持我們的其他政府部門,及與我們攜手舉辦各項公眾教育宣傳活動的機構,也衷心感謝業界和市民對部門的信任。

人可光 偉 機電工程署署長

機電工程署署長何光偉

Indeed we have been taking this path in recent years with tangible results. Regulatory Services has become more customer-focused, and the collaborative approach has helped prevent incidents and potential breaches of the law before they occur, to the benefit of all parties concerned.

regulatory capabilities.

#### MAINLAND COOPERATION CONTINUES

On the subject of collaboration, the 2003-2007 "Cooperation Arrangement on Electrical and Mechanical Products Safety" with the mainland's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) has just drawn to a close, and we have entered into another four-year cooperation arrangement ending in 2011. The past four years have seen fruitful cooperation in terms of regular exchange and training, and in setting up an alert mechanism with regard to domestic electrical and gas appliances, lifts and escalators and energy efficiency. We believe the next four years of cooperation will be equally productive.

# **NEW DEVELOPMENTS**

Several new developments during the year are also noteworthy. We launched the Voluntary Registration Scheme for Vehicle Mechanics in January 2007 and the trade has responded with great enthusiasm. As of the end of 2007, more than 3,400 vehicle mechanics have successfully registered and we expect the momentum to continue. With the relevant code of conduct and the associated performance monitoring system, the Scheme will raise the professional standards and image of the trade. The Scheme will be reviewed in 2008 and one of the options to explore will be whether to make registration mandatory.

Internally, a new Railways Branch will be established in February 2008\*, subject to Legislative Council approval. The Railways Branch will take on the functions of the existing Hong Kong Railway Inspectorate and, administratively, will be integrated with EMSD. Specifically, the Railways Branch will regulate all railway lines operated by the MTR Corporation

#### AWARDS RECOGNISE OUTSTANDING EFFORT

Limited as well as new railway lines, Hong Kong Tramways

and Peak Tram, and the Airport Authority's automated people

mover in the airport terminal buildings. This is a welcome

development and a natural fit with our existing E&M safety

The year 2007 brought Regulatory Services several awards within the Government. I wish to congratulate staff teams that won awards in the Civil Service Outstanding Service Award Scheme 2007: the Electricity Legislation Division, which was first runner-up in the Innovation Award, and the Energy Efficiency Office, which won a merit award in the Application of Technology category. In addition, an engineer from our General Legislation Division was one of the winners of the Ombudsman's Awards 2007 for Officers of Public Organisations. I am sure we will all find inspiration to go that extra mile from these examples of outstanding effort by our colleagues.

Last but not least, I wish to express my gratitude to all Regulatory Services staff members who have contributed so much in the past year. I also wish to thank our colleagues in other government departments for their support, and our friends in all of the organisations with which we collaborate for their contribution to a variety of joint programmes and activities for the public good. I also thank the trades and the people of Hong Kong for the trust they place in the department.

With your support, I look forward to another successful year in 2008.

Ho Kwong-wai

Director of Electrical and Mechanical Services

As Knoy Lin



2007年,是我們繼續務求把規管服務做得更具 成效、更有創意的一年。

2007 was a year in which we continued to explore ways to make our Regulatory Services more effective and innovative.

# 業務回顧 Operations Review

2007年,是我們繼續務求把規管服務做得更具成效、更有 創意的一年。

# 重點成績

正如署長指出,規管服務在2007年的表現持續向上,多種機電事故數字下降。其實,香港在個別設施方面的機電事故率是偏低的,以致命的氣體事故為例,香港的事故率是每百萬人0.1宗,是全球第二低,僅次於日本的每百萬人0.05宗。做到全球最佳安全紀錄之一,確是香港的成就。

我們在節能和能源效益方面的努力也見成效。香港的能源強度自1995年以來已減少了超過13%,而公眾對能源效益的意識也日漸提高。商界對政府提倡在日常業務運作中節省能源的活動,也反應積極。

2007年6月, 昂坪360纜車一個無人車廂下墜。纜車服務馬上停止, 我們旋即展開深入調查, 找出事故原因。新的營運商及纜車系統現已全面達到我們嚴格的安全要求, 昂坪360也於2007年12月底重開。

#### 年內新猷

固定電力裝置的新顏色代碼已於2007年7月1日生效,推行相當順利。我們與業界緊密合作,至今已為八成以上的註冊電業工程人員,提供了新顏色代碼的培訓。2007年的另一新猷,是推出「車輛維修技工自願註冊計劃」。計劃推出以來,無論註冊人數和口碑都相當理想。

能源效益方面也有新措施。能源效益標籤計劃(第一階段)的條例草案已在年內提交立法會,立法工作可望於2008年完成。2007年12月,政府開始了為期3個月、有關強制執行《建築物能源效益守則》的公眾諮詢。這兩個條例如獲通過落實,將大大提高家用電氣產品及建築物設計與管理的能源效益。

年內,香港鐵路有限公司(港鐵)運輸系統的自動梯事故,有 上升趨勢。我們正與港鐵合力找出原因。情況顯示部份乘客 可能不知道某種行為的危險,例如在移動的自動梯上行走等, 因此有可能需要進行更有針對性的教育工作。



2007 was a year in which we continued to explore ways to make our Regulatory Services more effective and innovative.

#### **RESULTS AND HIGHLIGHTS**

As the Director noted in his message, the year recorded continuous improvements, with various types of E&M related incidents on the decline. Indeed, Hong Kong's E&M incident rate for specific facilities is comparatively low. For example, Hong Kong's rate of lethal gas incidents is 0.1 incidents per million population, second only to Japan which recorded 0.05 incidents per million population. Achieving one of the best gas safety records in the world is no small feat for Hong Kong.

Our efforts in energy saving and efficiency have also yielded results. Hong Kong's energy intensity has decreased by more than 13 per cent since 1995, and public awareness of energy efficiency is on the rise. The private sector has responded enthusiastically to Government's lead on saving energy in business operations.

In June 2007, an empty cabin on the Ngong Ping 360 ropeway was dislodged. The cable car service was immediately

suspended and we undertook a prompt and thorough investigation into the cause of the incident. Ngong Ping 360 was authorised to re-open in late December 2007 after we were fully satisfied that the new operator and the system met all of our stringent safety requirements.

#### **NEW DEVELOPMENTS**

The year saw the smooth implementation of the new cable colour code for fixed electrical installations in Hong Kong, which took effect on 1 July, 2007. Working closely with the trade, we have so far provided training on the new code to more than 80 per cent of registered electrical workers. Another new initiative in 2007 was the Voluntary Registration Scheme for Vehicle Mechanics, also highly successful both in applicant numbers and general word-of-mouth.

Several new initiatives were related to energy efficiency. Proposed legislation for the Energy Efficiency Labelling Scheme (first phase) was introduced to the Legislative Council during the year, with legislative work likely to be completed in 2008. In December 2007, the Government began a threemonth public consultation on the proposed mandatory

## 14 機電工程署規管服務 2007 年業務概覽 業務回顧



我們的督察巡查洗衣店氣體乾衣機氣體喉管。 Our staff inspecting the gas pipes of a commercial laundry gas dryer.



自動梯事故往往與使用者的行為有關,需要更聚焦的市民教育工作。 Escalator incidents are often related to user behaviour and call for more focused community education.

## 社區教育見成效

總的來說,我們很高興見到公眾對機電安全和能源效益的意識提高。我們在2007年委託了顧問公司進行問卷調查,量度市民對機電安全和能源效益的認識,結果顯示很多方面都有好成績。

舉例說,約85%受訪者在有關正確維修電氣產品的問題得滿分:97%受訪者知道罐裝噴霧產品須於空氣流通的地方使用,95%受訪者知道不應在移動的自動梯上行走;而92%受訪者知道不應在自動梯上攜帶大型物件、嬰兒車或手推車。

今次調查在部份範疇的得分,比以往同類調查也有進步。特別令人鼓舞的是,兒童及十多歲的受訪者,正確意識相當高,證明我們過去幾年主動走進社區加強滿通、特別是為年青一代做的教育工作,漸見成效。

### 更精明的風險管理

要成為更精明的規管機構,我們要有新的思考模式,重新考慮工作方法和如何調配資源。舉例說,傳統的做法,是進行某一數量的巡查,以找出不符合法例的行為並進行檢控。但今天這方法已不足夠,因為巡查和檢控數字本身,並不能表達它們在預防事故方面是否奏效,而預防事故、減少因事故做成的傷亡,卻正是規管服務的最終目的。

我們需要的,是實施風險管理,把資源集中在風險較高的地方,以收最大的預防事故成效。根據這方式,我們應優先巡查缺乏適當維修保養的裝置、及事故率偏高的電氣產品。

另一風險管理的例子,是我們在2007年為小童機動遊戲引進的「隨機抽樣核實機制」。這些投幣運作的小童機動遊戲, 比其他機動遊戲的風險較低。新的機制讓附有詳盡檢測報告 的牌照申請,比以前較快獲得批准,而無降低安全標準。



我們為小童機動遊戲引進以風險管理為基礎的核實機制,為各方都帶來 良好績效。

We have adopted a risk-based approach to the inspection work of kiddle rides, with win-win results for all.

implementation of the Building Energy Codes. If implemented, these two pieces of legislation will go a long way towards fostering energy efficiency in domestic appliances and in building design and management.

During 2007, the escalator incident rate in MTR transport systems showed an upward trend. We are working with MTR to ascertain the causes. It would appear that some users are not aware of the dangers of certain behaviour, such as walking on a moving escalator, and more focused education may be necessary.

#### COMMUNITY EDUCATION SHOWING RESULTS

Overall however, we are pleased to see increased public awareness of E&M safety and energy efficiency issues. A questionnaire survey we commissioned in 2007 to track the general public's awareness of E&M safety and energy efficiency indicated good results in many areas.

For example, some 85 per cent of respondents scored full marks for questions on proper maintenance of electrical appliances; 97 per cent of respondents were aware that bottle aerosol products should be used in well-ventilated areas; 95 per cent understood that they should not walk on escalators; and 92 per cent knew that they should not use escalators to carry heavy goods, baby strollers or trolleys.

There were also significant improvements in some areas of enquiry compared to previous surveys. It is especially heartening to see fairly high levels of awareness among teenage and child respondents. The findings indicate that our strategy in the past few years of communicating proactively with different segments of the community, in particular the younger generation, is producing results.

#### SMARTER, RISK-BASED APPROACH ADOPTED

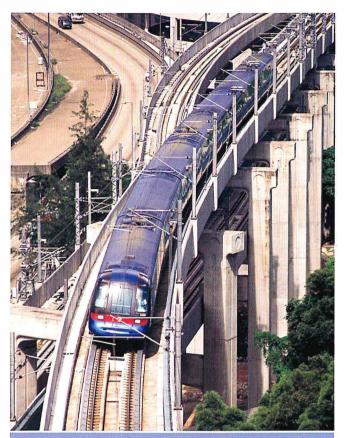
Consistent with our drive to become a "smart" regulator, we are adopting a new mindset as we begin to review how we work and allocate resources. For example, we have traditionally relied on conducting a certain quantity of inspections to identify non-compliances and initiate prosecutions. However, this approach is no longer adequate today because inspection and prosecution numbers by themselves do not tell us how effective they are in preventing incidents and thereby reducing injuries and casualties, which is our ultimate aim.

What we need is a risk management approach so that we can focus our resources on higher-risk areas for optimal results. Using this approach, priority inspections should be conducted on installations lacking proper maintenance and on electrical products with high incident rates.

Another example of a risk-based approach was the "random audit inspection system" we introduced in 2007 for kiddie rides. These coin-operated rides for small children have a much lower incident risk than other types of amusement rides. The new system enables applications which are fully supported by detailed testing reports to secure an operating permit much faster than before, and without compromising safety standards.

The risk-based approach will call for our divisions to review existing measurement targets and indicators and come up with new ones that emphasise effectiveness and outcome rather than output. The indicators may vary across divisions due to differences in the nature of work, calling for more flexibility and innovation.

# **16** 機電工程署規管服務 2007 年業務概覽 業務回顧



我們很高與能擔當規管鐵路安全這新角色·並預期會為我們的工作帶來協同效應。

We are excited about our new role as the railway safety regulator, which will also create synergy in our work.

風險管理的工作模式,要求我們各個部別去重新檢討現行的 工作量度指標,從而制訂強調成效和結果、而非工作數量的 新指標。由於每個部別的工作性質都有差異,指標也會不同, 需要更大的靈活性和創意。

與此同時,我們的能源效益事務處也必須繼續進行研究和發展工作,促進香港更廣泛使用新的能源效益科技。社會各界都期望我們在這方面能發揮領導作用。

#### 鐵路安全新角色

待立法會批准後,機電工程署將於2008年設立新的鐵路科\*。 鐵路科會規管港鐵營運的所有鐵路及機場管理局在機場客運 大樓的旅客捷運系統。2008年4月開始,鐵路科也會接手香 港纜車和山頂纜車的規管工作。鐵路科的角色,是根據有關 法例監察香港所有鐵路的安全。它的主要職能包括調查重大 鐵路事故、跟進改善措施、評估和審批新鐵路項目及主要設 施的變動、及確保鐵路公司採取最佳的安全措施。

其實,我們參與鐵路安全工作已有一段日子。由2007年8月起,我們已協助運輸及房屋局評估有關九廣鐵路公司和地鐵公司合併的安全事宜,目標是確保鐵路安全不會因2007年12月2日的兩鐵合併而受影響。在合併的過渡期,並無發生因合併引起的安全事故,鐵路也安全有序地運作。

鐵路科的成立,為規管服務增添了鐵路安全的功能。新的 安排有很明顯的協同效應,例如一旦發生重大的鐵路事故, 我們可更有效地集中人手和資源應付,而部門內的鐵路專才 調配、培訓、繼任籌劃和分享最佳措施等,都會更事半功倍。 我們很高興能擔當這新角色,來年會有更詳盡的報告。

### 鳴謝

最後,本人謹向所有員工及持份者衷心致意,感謝他們過去 一年的支持和貢獻。我期望2008年與各位再度攜手,創出 成果豐碩的一年。

陳鸿祥

副署長/規管服務 陳鴻祥





與業界保持緊密溝通是我們日常的重要工作之一。 Communication with the trades continues to be important in our day-to-day work.

我們也參與社區推廣可再生能源的活動。 Participating in community events on renewable energy promotion.

At the same time, it is important that our Energy Efficiency Office continues its efforts in R&D work with a view to promoting the application of new energy efficiency technologies in Hong Kong. The community counts on us to provide such leadership.

## **NEW ROLE IN RAILWAY SAFETY**

A new Railways Branch will be set up in EMSD in February 2008, pending approval from the Legislative Council\*. The Branch will regulate all railway lines operated by the MTR Corporation Limited and the Airport Authority's automated people mover in the airport terminal buildings. Commencing from April 2008, the Branch will also take up the regulatory role for Hong Kong Tramways and Peak Tram. The Branch will oversee the safety of all railways in Hong Kong in accordance with the relevant legislations. Its main functions include investigating major incidents, following up of improvement measures, assessing and approving new railways and major modifications as well as ensuring the adoption of best safety practices by the railway corporations.

In fact, we have been involved with railway safety work for some time. Since August 2007, we have supported the Transport and Housing Bureau in assessing preparation work in relation to safety aspects leading to the merger of the Kowloon-Canton Railway Corporation and the MTR Corporation Limited. Our goal was to upkeep the safe operation of railways and to ensure railway safety would not be compromised by the merger which was implemented on 2 December 2007. During the merger transition period, no safety incident related to the merger occurred and railway safety was maintained in an orderly manner.

This new development adds railway safety to our Regulatory Services functions. The synergy is obvious, as the new arrangement will make it easier for us to pool people and resources in the event of a major railway incident. The deployment of expertise, training and succession planning will also be more effective, as will the sharing of best practices within the department. We are excited about the new role and we shall have more to report next year.

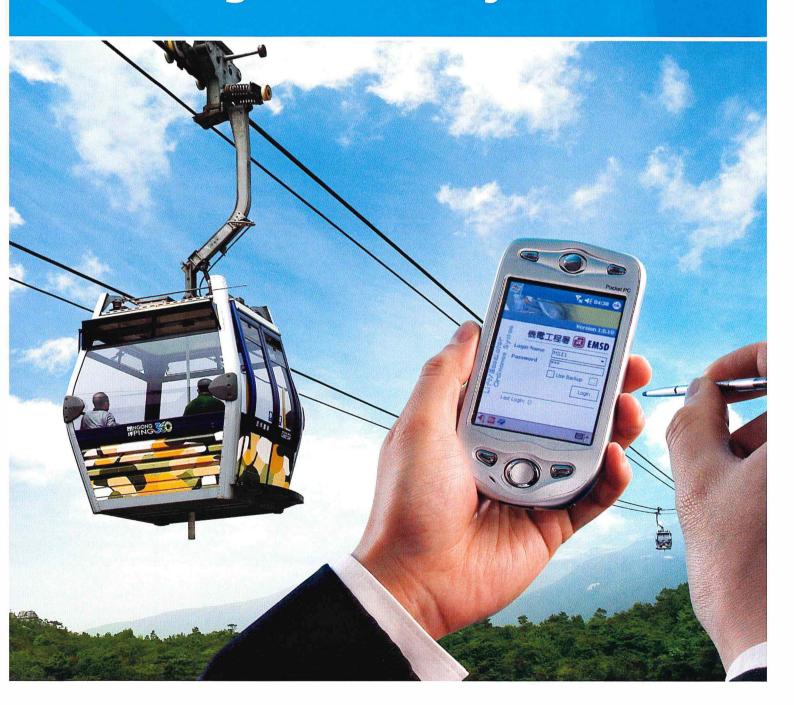
#### **VOTE OF THANKS**

Finally, I wish to thank all our colleagues and stakeholders for their commitment and good work in the past year. I look forward to another year of collaboration and success in 2008.

Stephen H C Chan

Deputy Director / Regulatory Services

# 保障公眾安全 Protecting Public Safety



2007年的機械安全規管工作,無論在事故調查和 推出新措施方面,都是繁忙的一年。

2007 was an eventful year in mechanical safety, both in terms of incident investigation and new initiatives launched.

7

### 機械安全

2007年的機械安全規管工作,無論在事故調查和 推出新措施方面,都是繁忙的一年。

#### 重開昂坪360

大事之一,是昂坪360纜車於2007年6月因一個無人車廂墜落事件而關閉數月後,於2007年12月31日重開。我們促進事件的調查工作,並為律政署提供證據以進行檢控。新營運商在滿足全部安全要求後,已獲准重開纜車系統。

#### 以風險管理安排巡查

年內的成就之一,是我們採用了風險管理方法,加快小童機動遊戲的發牌工作。這些投幣運作的小童機動遊戲,在本港的安全紀錄良好,比其他機動遊戲的風險較低。我們採用了隨機抽樣核實機制,讓附有詳盡檢測報告的牌照申請,只須隨機抽樣核實,發牌程序因此縮短了3天。在不損害安全標準的情況下,達至雙贏。

#### **MECHANICAL SAFETY**

2007 was an eventful year in mechanical safety, both in terms of incident investigation and new initiatives launched.

#### Ngong Ping 360 Re-opens

A key event was the re-opening of Ngong Ping 360 on 31 December 2007 after the service was closed for several months subsequent to the dislodging of an empty ropeway cabin in June 2007. We facilitated the investigation of the incident and provided the Department of Justice with evidence for prosecutions. Authorisation for the re-opening was given to the new operator after all safety requirements were met.

#### Risk-based Approach to Inspection

An achievement during the year was the launch of a risk-based initiative to expedite the issuing of operating permits for kiddle rides. These coin-operated rides for small children have a good safety record in Hong Kong and the risk is low compared to other amusement rides. We have adopted a random audit inspection system whereby applications supported by detailed test reports are granted operating permits subject to random inspections only, speeding up the process by about three days. This is a win-win arrangement for all, without compromising safety standards.



昂坪360纜車的新營運商在符合全部安全要求後,已獲准重開纜車系統。 Authorisation for the re-opening of Ngong Ping 360 was given to the new operator after all safety requirements were met.



我們於2007年採用了風險管理方法·加快小童機動遊戲的發牌工作。 We launched in 2007 a risk-based initiative to expedite the issuing of operating permits for kiddie rides.

#### 審批新機動遊戲

我們已開始了海洋公園拓建計劃有關機動遊戲設計和安裝的 審批工作,並已審批了公園內的全港首個氦氣球,於2007年 初投入服務。至於香港迪士尼樂園的新機動遊戲審批工作, 剛在較早前完成,並已安排在2008年4月底投入服務。

#### 升降機及自動梯問題

為了進一步了解發生於香港鐵路公司(港鐵)系統內的自動梯事故成因,我們正與港鐵合力搜集資料,並對使用者行為作深入研究。我們已於電視及公共交通系統加強自動梯安全的宣傳。不過數字顯示老年人特別容易發生這方面的意外,因此會繼續加強針對性的公眾教育工作。

為了鼓勵業主為運作中的升降機進行適當的維修保養,我們加強了巡查。2007年巡查升降機的次數達7,300,比2006年增加約四成。我們也繼續派發資料小冊子,提醒大廈業主要履行法律責任,為物業的升降機進行適當的維修保養。

#### 申訴專員嘉許獎

一般法例部的柯偉雄先生·榮獲 2007 年申訴專員嘉許獎 (優異服務組別)·我們十分高興。柯先生與其他同事並肩· 為 2006 年牛頭角氣體爆炸事故中受影響的一幢住宅樓宇, 迅速恢復安全的升降機服務,做了重要工作。

#### 車輛維修技工註冊

業界對「車輛維修技工自願註冊計劃」反應十分熱烈。由 2007年1月推出計劃至2007年12月底,本港約10,000名車輛 維修技工有接近六成以上已申請註冊,而其中3,400多名已 成功註冊,反應比預期理想,證明業界普遍支持這個可以提 高車輛維修行業專業形象與服務水平的計劃。註冊計劃將於 2008年進行檢討,屆時將決定計劃的未來發展方向。



業界對「車輛維修技工自願註冊計劃」反應十分熱烈。 The Voluntary Registration Scheme for Vehicle Mechanics met with great enthusiasm from the trade.



我們定期巡查海洋公園內的全港首個氦氣球。 We regularly inspect the Ocean Park helium balloon, the first in Hong Kong.

#### Vetting of New Amusement Rides

We have also been working to approve the design and installation of amusement rides under the Ocean Park Redevelopment Project, and have vetted and approved the Park's helium balloon, the first in Hong Kong, which began operation in early 2007. The assessment of the new amusement ride for Hong Kong Disneyland was recently completed. Operation of the new amusement ride is scheduled to commence in the end April 2008.

#### Lift and Escalator Issues

To better understand the reasons of MTR related escalator incidents, we are working closely with the MTR Corporation to gather information and conduct an in-depth analysis of user behaviour in order to ascertain the reasons. We have already stepped up escalator safety publicity on television and public transport, but anticipate that more targeted public education will be necessary as the numbers indicate that the elderly are particularly prone to such incidents.

To promote the proper maintenance of lifts in operation, we have increased inspections. Over 7,300 inspections of those

lifts were carried out in 2007, about 40 per cent more than in 2006. We also continued to disseminate information booklets to remind building owners of their statutory duty to provide proper maintenance to lifts on their premises.

#### Ombudsman's Award

We are happy to report that Mr Or Wai-hung, an engineer in the General Legislation Division, was one of the winners of the Ombudsman's Awards 2007 for Officers of Public Organisations. Working with EMSD colleagues, Mr Or was instrumental in facilitating the safe and speedy resumption of lift services in a residential building affected by a gas explosion in Ngau Tau Kok in 2006.

#### Vehicle Mechanics Registration

The Voluntary Registration Scheme for Vehicle Mechanics met with great enthusiasm from the trade. Between its January 2007 launch and the end of December 2007, nearly 60 per cent of the approximately 10,000 vehicle mechanics in Hong Kong applied for registration, of whom 3,400 have been successfully registered. The response was better than expected, indicating that the trade is supportive of raising both professional image and service standards. The Scheme will be reviewed in 2008 and its future development will be determined.



「車輛維修技工自願註冊計劃」透過多種渠道向業界和市民宣傳 The Voluntary Registration Scheme for Vehicle Mechanics publicises its messages to the trade and community via various channels.

# 2007年的主要成就,是順利推行新的固定 電力裝置電線顏色代碼。

A major achievement in 2007 was the smooth implementation of the new cable colour code for fixed electrical installations in Hong Kong.

## 電力安全

#### 新電線顏色代碼順利推行

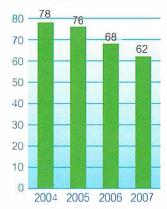
2007年的主要成就,是順利推行新的固定電力裝置電線顏色 代碼。新代碼已於2007年7月1日生效,多年來的籌備和廣泛 培訓終於見到成果。我們會繼續監察情況,並繼續鼓勵註冊 電業工程人員通過多種渠道提供的培訓,例如機電工程署總 部的電線顏色代碼訓練中心、及設於機電工程署網站新顏色 代碼網頁的自我評估練習等。

# 事故持續下降

年內電力事故持續下降。第三者損毀電纜事故繼續減少,由2006年的92宗下降18.5%至2007年的75宗,是歷年新低。停電事故也持續減少,由2006年的1,717宗減至2007年的1,458宗。電氣產品事故也下降,由2006年的68宗降至2007年的62宗,並以電風扇和電視機事故的降幅最為明顯。電氣產品事故減少,原因之一,是我們與業界的溝通和合作,促使電氣產品供應商和製造商,提早採用新版國際電工委員會(IEC)的安全標準。以電風扇為例,雖然原定的計劃是於2008年1月引進新安全標準,但2007年夏天,全港八成以上的電風扇已採用了新標準,而另外的66種電氣產品,原定計劃於2008年12月採用新標準,但到了2007年冬天,有六成以上已採用了新標準。

### 電氣產品事故持續減少 Electrical Product Incidents Continue to Decline

#### 事故數字 No. of Incidents



電氣產品事故數字持續下降,2007年 更創62宗的新低,並以電風扇和電視 機事故的降幅最為明顯。原因之一是 業界提早採用了新版國際電工委員會 (IEC)的安全標準。

Reported electrical product incidents continued to decline and reached a new low of 62 in 2007, with electric fans and TV sets recording the most notable declines. This follows the earlier-than-planned adoption of new IEC safety standards by the trade.

#### 安全意識上升

另一好消息是公眾的電氣安全意識有所提升。電力法例部一直都有進行調查,追蹤市民大眾的電氣安全意識。年內的調查結果,顯示整體的電氣安全意識不斷提高,例如電力裝置擁有人有較高意識去履行為電力裝置進行定期檢測的法律責任,而市民對安全使用及維修保養電氣產品的意識也見提高。

#### 與業界及國際機構合作

我們與業界及國際機構緊密合作,並推動與有關的國際權威 機構和組織合作,務求掌握最新的電氣安全標準及科技。

#### 修訂技術指引及工作守則

為了提高公眾安全,我們出版了《電氣產品(安全)規例指南(2007年版)》。此外,我們也成立了一個包括業界人士和政府代表的工作小組,為2003年版的《電力(線路)規例工作守則》進行檢討及修定,新版本預計於2009年初出版。

#### **ELECTRICAL SAFETY**

#### Smooth Implementation of New Cable Colour Code

A major achievement in 2007 was the smooth implementation of the new cable colour code (CCC) for fixed electrical installations in Hong Kong, which took effect on 1 July 2007. The years of preparation and extensive training for the trade have definitely paid off. We shall continue to monitor the situation and keep up the training momentum for registered electrical workers, via various channels such as our CCC Training Centre at EMSD headquarters and online self-assessment exercise at the CCC web corner of the EMSD website

#### Incidents Continue to Decrease

Incident numbers continued to drop. The downward trend in incidents of third-party damage to electricity supply lines continued, with the number of incidents decreasing from 92 in 2006 to a record low of 75 in 2007, a decrease of 18.5 per cent. Power interruption cases also continued to decline, from 1,717 in 2006 to 1,458 in 2007. Electrical product incidents were also less frequent, at 62 in 2007 compared to 68 in 2006, with electric fans and TV sets recording the most notable declines. This follows the earlier-than-planned adoption of new International Electrotechnical Commission (IEC) safety

standards by electrical product retailers and manufacturers as a result of effective collaboration and communication with the trade. Electric fans, for example, were originally scheduled to adopt the new standards in 2008, but by the summer of 2007 over 80 per cent of electric fans had already adopted the new standards. The other 66 types of electrical products, planned to adopt the new standards by December 2008, also saw over 60 per cent of products complying with the new standards in the winter of 2007.

# Public Safety Awareness on the Rise

Another positive development was increasing public awareness of electrical safety. The Electricity Legislation Division has been tracking the general public's awareness of electrical safety issues on a regular basis. The findings indicate an upward trend in public awareness in areas such as the statutory obligation of installation owners to carry out periodic inspection, testing and certification for electrical installations and the safe use and maintenance of electrical products.

#### Collaboration with Trade and International Organisations

We collaborated closely with the trade and industry and took a leading role in working with relevant international authorities and organisations to keep track of the latest developments in electrical safety standards and technologies.



多年來的籌備和廣泛培訓業界人士終於見到成果,新的顏色代碼順利推行。 The years of preparation and extensive training for the trade have paid off in a smooth implementation of the new cable colour code.



測試家用電氣產品。 Testing of domestic electrical appliances。

# 創意教育工作獲獎

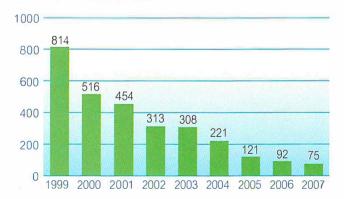
我們十分重視公眾教育與宣傳工作,並相信宣傳教育是防止事故及違法事件的關鍵。過去幾年,我們的策略是主動接觸社區各階層,以多種大眾傳媒、針對性的刊物、專為幼稚園、幼兒園及老人中心設計的講座、各種研討會、比賽以至網上互動工具與渠道,進行外展溝通工作。我們也使用家傳戶曉的動漫人物,帶出安全訊息,特別受兒童歡迎。我們很高興這策略得到嘉許,贏得2007年「公務員優質服務獎勵計劃」創新意念類別亞軍。

# 未來工作

展望來年,我們會繼續與業界攜手加強電氣安全,例如把最新的國際規則及新技術、本地業界的作業及從以往事故汲取的經驗,化為各種工作守則的一部份。同時,由於新類型的電氣產品不斷引進香港,我們需要加強電氣產品巡查工作,包括數碼電視機頂盒、LCD電視機及手提電磁爐等。我們也會為內部的日常運作實行ISO9001品質管理系統,務求持續改善。

### 第三者損毀電視事故持續減少 Third-Party Damage to Electricity Supply Lines Continues to Decline

第三者損毀電纜事故數字 No. of Third Party Damage Incidents



第三者損毀電纜事故繼續減少,由2006年的92宗下降至2007年的75宗,是歷年新低。我們希望透過有效的執法、巡查和教育工作,繼續減少損毀事故。 The downward trend in third-party damage to electricity supply lines continued in 2007, hitting a new low of 75 compared to 92 in 2006. We aim to maintain the falling trend through effective enforcement, inspection and education.

# 2007年停電事故減少 FEWER POWER INTERRUPTIONS IN 2007

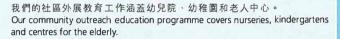
本港供電的穩定性續有加強,2007年的停電事故進一步下降,由2006年的1,717宗下降至2007年的1,458宗。為了提高供電的穩定性,我們加強了對兩家電力公司的設施及裝置的巡查,及進行深入的事故調查與跟進工作。

Reliability of power supply in Hong Kong has further improved in 2007, with power interruption cases falling further from 1,717 in 2006 to 1,458 in 2007. This was the result of a combination of factors including steppedup inspection of the equipment and installations of the two power companies, and effective investigation of reported power interruption incidents and follow-up action.



巡查固定電力裝置。
Inspection of fixed electrical installations.







我們與電氣業界的研討會·參加人數都非常踴躍。 Our seminars with the electrical trade are well-attended events.

#### Guidance Notes and Codes of Practices Revised

To enhance safety for the trade, we published a revised version of the Guidance Notes for the Electrical Products (Safety) Regulation in 2007. We also formed a working group comprising trade and government representatives to review and revise the Code of Practice for the Electricity (Wiring) Regulations. The new edition of the Code of Practice is scheduled for publication in early 2009.

## Innovative Public Education Wins Award

We attach great importance to public education and publicity as the key to preventing incidents and breaches of the law. Over the past few years, our strategy has been to proactively reach out to different segments of the community via a wide array of mass media channels, targeted publications, tailored visits to kindergartens, nurseries and senior citizen homes, talks, seminars and competitions as well as online interactive tools and channels. We also use well-known cartoon characters to convey electrical safety messages, especially to children. The approach has won recognition. The Electricity Legislation Division was the first runner-up in the Innovation Award of the Civil Service Outstanding Service Award Scheme 2007.

#### Tasks Ahead

Looking forward, we shall further enhance electrical safety in collaboration with the trade by, for example, incorporating into our various codes of practice the latest international practices, advancements in technology, local trade practices and learning from past incidents. At the same time, there is a need to step up our product testing work as more new types of electrical products are imported into Hong Kong, including digital terrestrial TV set-top boxes, LCD TVs and portable induction cookers. We shall also implement ISO 9001 quality management system in our operations for continuous improvement.

## 電力市場檢討 ELECTRICITY SUPPLY MARKET REFORM

我們有一小組的同事,為政府就改革電力供應市場的研究、及與兩家電力公司的《管制計劃協議》, 同政府提供技術意見與支援。

A small team of our officers also provided technical advice and support to the Government in the electricity supply market reform and the review of the Schemes of Control of the two power companies.

26

我們正轉用風險管理的模式進行氣體安全 工作。例如進行分區氣體事故分析,把資 源集中在設施老化的地區。

We are also shifting to a risk-based approach to gas safety work. For example, through an analysis of gas incidents by district, more resources can be directed to areas with aging facilities.



## 氣體安全

氣體安全在2007年有進一步發展。

年內的氣體事故數字持續下降,第三者損毀地下氣體喉管事故由2006年的14宗下降至2007年的12宗,達到新低。香港在致命氣體事故方面的安全紀錄是全球最佳之一,每百萬人0.1宗,是全球第二低,僅次於日本的每百萬人0.05宗。

#### 石油氣車輛計劃

我們繼續與業界就石油氣車輛計劃及專用石油氣加氣站的運作,透過定期季度會議加強聯繫。目前全港有18,000多輛的士與2,700多輛小巴已改用石油氣,配套方面則有1,000多名已培訓的石油氣車輛維修技工及58個石油氣加氣站,其中12個是專用加氣站。我們也於2007年11月發出了石油氣加氣站的工作守則。

#### 天然氣車輛可行性研究

to the town gas production plant in Tai Po.

我們代表政府委託了顧問公司進行研究,探討把天然氣及石油氣巴士與重型車輛引進香港的可行性。研究範圍包括本港天然氣及石油氣的供應情況、市場上的車輛型號、基建配套及車輛維修要求、及評估風險與環保效益。研究將於2008年完成。

#### 第一類勝任人士新要求

年內我們也修改了第一類勝任人士的規管架構,修訂了有關 石油氣瓶、氣缸、氣化器及供氣主喉測試及簽發證明書的安 排。並成立了第一類勝任人士的表現監察制度,通過品質巡 查去監察其工作。



新界東北堆填區的沼氣設施一覽。沼氣是清潔能源,現已用作生產 煤氣,以降低溫室氣體排放。

View of the landfill gas facilities at the Northeast New Territories Landfill. Landfill gas, a clean fuel, is used for town gas production to reduce greenhouse gas emissions.

filling stations. A Code of Practice for LPG filling stations was issued in November 2007.

#### Study on Gas Fuelled Vehicles

On behalf of the Government, we have commissioned a consultancy study on the feasibility of introducing buses and heavy duty vehicles fuelled by natural gas and LPG. The study is considering the availability of natural gas and LPG supply in Hong Kong, vehicle models in the market, infrastructural support and vehicle maintenance requirements, as well as assessing risks and environmental benefits. The study will be completed in 2008.

#### New Requirements for Class 1 Competent Persons

We have also reformed the regulatory framework for Class 1 competent persons with regard to testing and certification of LPG cylinders, tanks, vaporisers and mains. A performance monitoring system has been set up to supervise the work of the competent persons through quality assurance inspections.

#### GAS SAFET.

2007 saw further progress in gas safety.

Incident numbers continued to come down during the year. Reports of third-party damage to underground gas pipes decreased from 14 incidents in 2006 to 12 incidents in 2007, a record low. In terms of fatal gas incidents, Hong Kong has one of the best safety records in the world at 0.1 incidents per million population, second only to Japan with 0.05 incidents per million population.

#### LPG Vehicle Scheme

We continued to strengthen communications with the trades with regard to the Liquefied Petroleum Gas (LPG) Vehicle Scheme and the operation of dedicated LPG filling stations, via regular quarterly meetings. To date, over 18,000 taxis and 2,700 light buses have already switched to LPG, supported by more than 1,000 trained LPG vehicle maintenance personnel and 58 LPG filling stations, of which 12 are dedicated LPG

# 監管沼氣處理設施的安全操作 MONITORING OF LANDFILL GAS TREATMENT FACILITIES

氣體標準事務處負責監察新界東北堆填區沼氣處理裝置及有關輸氣管道的安裝及運作。有關的沼氣處理設施已於2007年5月投入運作,沼氣經由一道長19公里的地下氣體管道,輸往大埔煤氣廠生產煤氣,使煤氣生產過程每年減少消耗達43,000立方公噸的石腦油,從而每年減少達135,000立方公噸的二氧化碳排放。

Our Gas Standards Office monitors the installation and operation of landfill gas treatment facilities and the associated gas pipelines at the Northeast New Territories Landfill. The facilities commenced operations in May 2007. Landfill gas is transmitted to the town gas production plant in Tai Po via a 19-kilometre underground pipe. Using landfill gas for town gas production reduces the use of up to 43,000 metric tonnes of naphtha every year, thereby reducing up to 135,000 metric tonnes of carbon dioxide emission every year.

## 燃氣乾衣機

洗衣店的燃氣乾衣機持續引起氣體事故,最常見的原因是排氣管內壁積聚棉絨。我們已為這類乾衣機的安裝人員、持有人及操作人員就正確的安裝、檢測及維修保養發出工作守則。我們為氣體業界出版的定期刊物《氣體快訊》,也廣泛宣傳了有關的訊息。

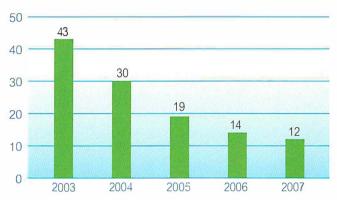
年內,我們的氣體標準事務處進行了內部改組,變得更以客 為本和更切合氣體業界的需要。此外,也更廣泛使用資訊科 技,比如使用「綜合氣體安全執法系統」,更有效地追蹤事 故調查及匯集整理統計數字。

#### 風險管理模式

我們正轉用風險管理的模式進行氣體安全工作。例如進行分區氣體事故分析,把資源集中在設施老化的地區。與業界合作也是優先的工作,從而讓我們能協助業界人士遵守各種安全要求,而非讓事故發生後才採取行動。我們目前正與石油氣業界商討,倡導一個石油氣行業的自願性瓶裝石油氣分銷商評級計劃,以提高業界對市民的服務質素。一如以往,我們也十分重視與業界的溝通工作,透過講座、研討會、通訊刊物、會議及互聯網等維持緊密聯繫。

# 第三者損毀地下氣體喉管事故持續減少 Third-Party Damage to Gas Pipes Continues to Decline

第三者損毀地下氣體事故數字 Third-Party Damage to Gas Pipes Continues to Decline



第三者損毀地下氣體喉管事故自1997年以來持續減少·2007年更降至12宗的新低、圖為過去5年的數字。

Incidents of third-party damage to underground gas pipes have declined every year since 1997. The chart shows figures in the past five years, with a record low of 12 in 2007.



我們的員工巡查洗衣店燃氣乾衣機。我們為這類燃氣乾衣機的持有 人、安裝及操作人員就正確的安裝、檢測及維修保養做了不少宣傳 教育工作。

Inspection of gas dryers in commercial laundries. Much promotion work has been done to help owners, installers and operators carry out proper installation, inspection and maintenance of gas dryers.

#### Gas Dryer Safety

Gas dryers used in commercial laundries continued to be a source of incidents, the most common being fires caused by gathered lint blocking the inside of exhaust pipes. We have issued a Code of Practice for installers, owners and operators of such dryers with regard to proper installation, inspection and maintenance. The Gas Safety Bulletin, our newsletter for the gas trade, also publicised the issue.

Our Gas Standards Office went through an internal re-organisation in 2007 with the result that it is now more customer-focused and better aligned with the gas industry's needs. Information technology, such as the Integrated Gas Safety Enforcement System, is being used more extensively to efficiently track incident investigations and compile statistics.

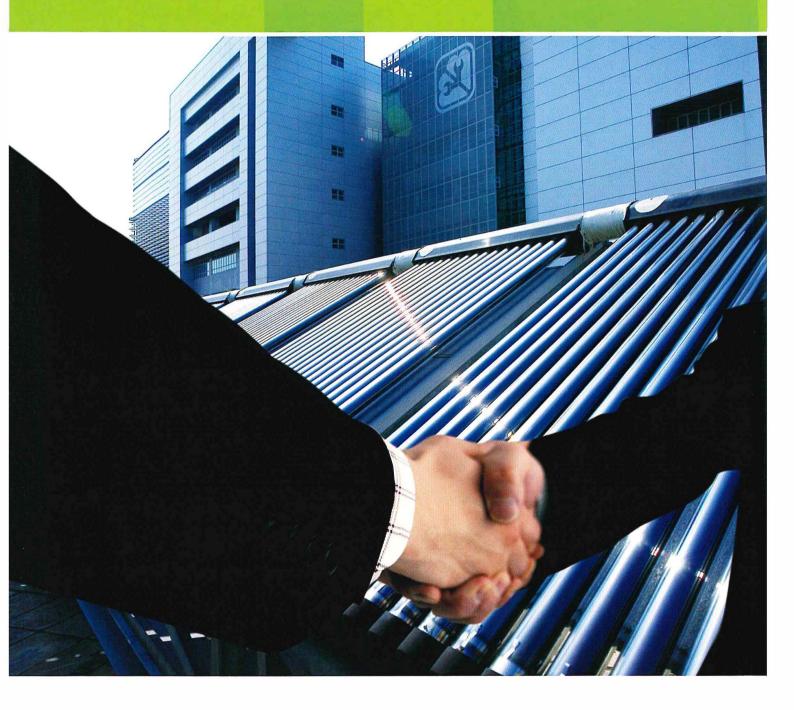
# Risk-based Approach

We are also shifting to a risk-based approach to gas safety work. For example, through an analysis of gas incidents by district, more resources can be directed to areas with aging facilities. Collaboration with the industry is also a priority so that we may assist in compliance with safety requirements rather than wait until incidents happen. We are also talking to the LPG trade about the possibility of launching a voluntary Service Level Recognition Scheme for LPG Distributors in order to provide citizens with better services. Communication with the trade continues to be our priority, through talks and seminars, newsletters, meetings and the Internet.



氣體標準事務處負責監察新界東北堆填區沼氣處理裝置的安裝及運作。 Our Gas Standards Office monitors the installation and operation of landfill gas treatment facilities at the Northeast New Territories Landfill.

# 推廣節約能源 Promoting Energy Conservation



由於我們部份的自願性質能效計劃將來可能強制 執行,我們正為或會增添的職能,包括巡查、 檢測、執法和核實各種申請等進行籌備工作。

As some of our voluntary energy efficiency schemes may become mandatory in due course, we are getting ready for additional responsibilities in inspection, testing, law enforcement and validation of submissions.

能源效益事務處從兩方面推廣節能工作:提倡 能源效益及鼓勵更廣泛使用可再生能源。

#### 能源效益標籤立法進行中

有關強制性能源效益標籤計劃(第一階段)的條例草案已於 2007 年提交立法會,條例草案委員會正審議中。建議的第一階段計劃涵蓋 3 類家用電氣產品。計劃實行後,估計每年可節省 1.5 億度電及減少排放 105,000 公噸二氧化碳。

# 建議強制執行《建築物能源效益守則》

政府也於 2007 年 12 月開始諮詢公眾有關強制執行《建築物能源效益守則》的建議。《建築物能源效益守則》是我們 1998 年推出的自願性質「能源效益建築物註冊計劃」的一部份。多年來我們因應科技變化及各種新的要求,一直都有更新修訂《建築物能源效益守則》。

Our energy conservation work has two aspects: promoting energy efficiency and encouraging the wider use of renewable energy.

# ENERGY EFFICIENCY LABELLING LEGISLATION IN PROGRESS

Draft legislation for implementing the mandatory Energy Efficiency Labelling Scheme (first phase) was introduced into the Legislative Council during 2007, and is being examined by the Bills Committee. Once implemented, the first phase of the proposed scheme, which covers three electrical products, is expected to bring about an energy saving of 150 GWh and a reduction of 105,000 tonnes of carbon dioxide emissions a year.

# PROPOSAL FOR MANDATORY BUILDING ENERGY CODES

In December 2007 the Government also began public consultation regarding a proposal to make mandatory various Building Energy Codes. These Building Energy Codes are part of the voluntary Energy Efficiency Registration Scheme for Buildings that we launched in 1998 and which we have been periodically revising to reflect changes in technology and new requirements.



2007年11月在北京舉行的《第十一屆北京·香港經濟合作研討洽談會》。 國內與會者最感興趣的是我們作為政府部門·如何在香港推動能源效益的 且體工作。

Mainland delegates at the 11th Beijing-Hong Kong Economic Cooperation Exchange Conference held in Beijing in November 2007 were interested in the practicalities of how we promote energy conservation in Hong Kong as a qovernment department.

建議的法例會要求住宅、商業及工業樓宇的公眾地方符合在空調、照明、電力及升降機裝置的具體設計要求,這幾方面正是最有節能潛力的範疇。為期3個月的公眾諮詢將於2008年初結束,我們會協助政府進一步推展計劃。

### 能源強度及二氧化碳排放審計

減低能源強度是2007年9月在香港舉行的「亞太經濟合作組織能源工作小組」第34次會議的議題之一,會議由我們籌辦安排。各與會成員均重申對共同目標及宣言的承擔。

行政長官在2007/08施政報告中,重申政府要在2030年前,將能源強度至少降低25%的目標,並宣佈政府會為中環添馬艦政府總部大樓,進行二氧化碳排放審計及減排運動。我們會繼續協助政府,提供技術意見及恰當的方法。

## 京港合作交流會議

我們也參加了2007年11月5日在北京舉行的《第十一屆北京·香港經濟合作研討洽談會》,我們並為大會主持了一個以能源管理及《建築物能源效益守則》為題的座談會。與會者十分踴躍,以政府官員、學者及傳媒為主,最感興趣的是我們作為政府部門,如何在香港推動能源效益及節約能源的具體工作實施過程。



獲頒發香港建築物能源效益註冊計劃證審的建築物代表與副署長/規管服務陳鴻祥先生合照。

Group photo of DD/RS Mr. Stephen Chan with the representatives of buildings awarded with the Hong Kong Energy Efficiency Registration Scheme for Buildings Certificates.

#### 堆填區沼氫化為清潔能源

香港在使用清潔能源方面,例如運用堆填區沼氣,年內有良好進展。由2007年開始,新界東北堆填區的沼氣經由一道長19公里的地下氣體管道,輸往大埔煤氣廠生產煤氣,使煤氣生產過程減少消耗石腦油,也降低溫室氣體排放。作為本港的氣體安全監管機構,氣體標準事務處會密切監察堆填區沼氣處理裝置及有關輸氣管道的情況。

#### 更新各種能效守則及技術指引

社會各界都期望能源效益事務處提供各種有關能源效益及可再生能源的技術指引及能效守則。年內,我們出版了《可再生能源發電系統與電網接駁的技術指引2007年版》、分別有關照明、空調、電力、升降機及自動梯裝置的能效守則2007年版、及《成效為本建築物能源效益守則2007年版》。此外,也出版了《預防退伍軍人病症實務守則2007年版》。

我們很高興見到這些刊物引已起公眾的積極行動,例如商界申請接駁可再生能源發電系統至電網的數字,有上升趨勢。



The proposed legislation will require that public areas in residential, commercial and industrial buildings comply with specific design requirements in lighting, air-conditioning, electrical, lift and escalator installations, the four areas with the greatest potential for energy saving. The three-month public consultation will end in early 2008 and we stand ready to assist the Government in furthering the proposal.

#### **ENERGY INTENSITY AND CARBON AUDIT**

Energy intensity reduction was among the topics discussed at the 34th meeting of the APEC Energy Working Group, which we hosted in Hong Kong in September 2007. Members renewed their commitment to work on common targets and declarations.

In his 2007-08 Policy Address, the Chief Executive reconfirmed Hong Kong's goal of reducing at least 25 per cent of our energy intensity by year 2030, and announced that Government would conduct a carbon audit and implement an emissions reduction campaign in the new Central Government Complex at Tamar. We shall continue to support the Government by providing technical advice and the appropriate methodology.

#### BEIJING-HONG KONG EXCHANGE CONFERENCE

We also participated in the 11th Beijing-Hong Kong Economic Cooperation Exchange Conference held in Beijing on 5 November 2007. Among the conference highlights was a seminar we conducted on energy management and Building Energy Codes. It was very well attended by mainland government officials, academics and the media, all of whom were interested in the practicalities of promoting energy efficiency and conservation as a government department.

#### LANDFILL GAS AS CLEAN ENERGY

Hong Kong is also making good progress in the use of clean energy such as landfill gas. Beginning in mid-2007, landfill gas from the Northeast New Territories Landfill has been transmitted to the town gas production plant in Tai Po via a 19-kilometre underground gas pipeline and used to produce town gas. This reduces the use of naphtha and the emission of greenhouse gases. As the gas safety regulator, our Gas Standards Office monitors the installation and operation of landfill gas treatment facilities and the associated gas pipelines.

# CODES OF PRACTICE AND TECHNICAL GUIDELINES UPDATED

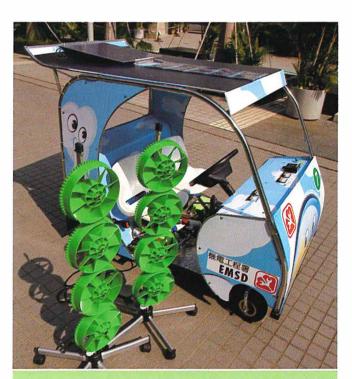
The community looks to our Energy Efficiency Office to provide technical guidelines and codes of practice on energy efficiency and renewable energy matters. During the year we published revised editions of the Technical Guidelines on Grid Connection of Renewable Energy Power Systems, the Codes of Practice regarding energy efficiency for lighting, air-conditioning, electrical installations, and lift and escalator installations respectively, and the Performance-based Building Energy Code. A 2007 edition of the Prevention of Legionnaires' Disease Code of Practice was also published.

We are happy to note that these publications have facilitated positive action from the public. For example, there have been increasing applications from the private sector to connect renewable energy power systems to the grid.

#### 獎項

能源效益事務處贏得2007年「公務員優質服務獎勵計劃」 科技應用類別優異獎,獎項褒揚同事在機電工程署總部引進 多項能源效益及可再生能源技術、在總部大樓推出「教育 徑」、及在社區推動各種宣揚「綠色能源」的活動。

我們設計的「可再生能源先驅」號可再生能源車,於香港首 個可再生能源車公開賽的戶外賽道比賽中, 贏得「最佳操控 獎」金獎。賽事共有16輛可再生能源車參與,是2007年 11月的「2007應用可再生能源設計暨競技大賽」的項目之一。 「可再生能源先驅」號運用3種不同的太陽能光伏板發電。



我們設計及製造的「可再生能源先驅」號可再生能源車、於香港 首個可再生能源車公開賽中,贏得「最佳操控獎」金獎。車頂的太 陽能光伏板為車輛發電。

"RE Frontier", a renewable energy vehicle which we designed and fabricated, won a Gold Award for Best Maneuvering in Hong Kong's first open competition for renewable energy powered vehicles. Solar panels installed at the top of the vehicle generate power.

#### 宣傳教育工作

繼2006年頒發的「第一屆能源效益獎」圓滿結束後,我們於 2007年再接再厲,舉辦「第二屆能源效益獎 |。我們也更新 了各種為公眾人士印製的刊物·例如《家居節能小貼士》及 《辦公室節能小貼士》,又出版了涵蓋1995至2005年10年數 據的《香港能源最終用途數據2007》。我們還推出了專題網 站,像一個專設的「香港可再持續科技網」(http:sustech. emsd.gov.hk)入門網站。年內我們也經常進行講座、研討 會和電視宣傳等其他宣傳活動。

## 禮會與挑戰

由於我們部份自願性質能效計劃將來可能強制執行,我們正 為或會增添的職能,包括巡查、檢測、執法和核實各種申請 等進行籌備工作。此外,隨著公眾對能源效益及可再生能源 的意識日漸提高,我們也須加強本身的研究及發展工作,為 香港引進適用的新能源效益科技。

# 香港能源最終用途數據

Hong Kong Energy End-use Data 2007



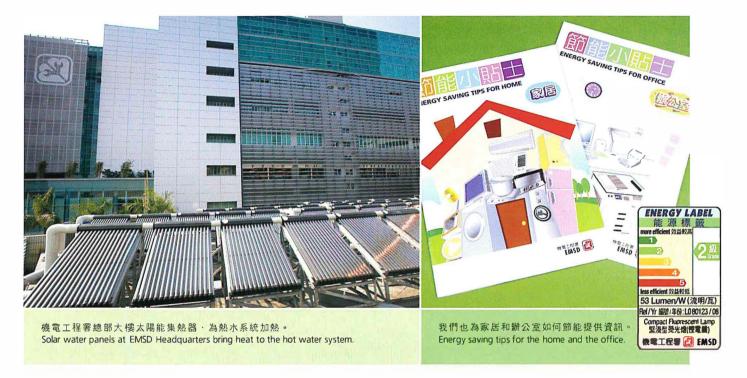
2007年9月四日(第一次经訂 - 2008年3月) ISSUED IN SEPTEMBER-2007(1st revision - March 2008)

EMSD 🔄



最新出版、涵蓋1995至2005年10年數據的《香港 能源最終用途數據2007》。

The latest Hong Kong Energy End-use Data 2007, covering the decade from 1995 to 2005.



#### **AWARDS**

The Energy Efficiency Office won a merit award in the Application of Technology Award, Civil Service Outstanding Service Award Scheme 2007, for its success in incorporating various energy efficiency and renewable energy features into the EMSD Headquarters building, and for launching the Education Path at headquarters as well as other publicity drives to promote "green energy" to the community.

We also won a Gold Award for Best Maneuvering in an open green auto circuit race, Hong Kong's first open competition for renewable energy powered vehicles, for our vehicle "RE Frontier" which we designed and fabricated. Sixteen renewable energy powered vehicles took part in the race which was part of the 2007 Hong Kong Technology & Renewable Energy Events, held in November 2007. "RE Frontier" uses three types of photovoltaic panels to generate power.

#### **PUBLICITY AND EDUCATION**

Riding on the success of the first Hong Kong Energy Efficiency Awards, which were presented in 2006, we held the second competition in 2007. We also updated various information booklets for the general public, including Energy Saving Tips for Home and Energy Saving Tips for Office, and issued the latest Hong Kong Energy End-use Data 2007, covering the decade from 1995 to 2005. Dedicated websites, such as one on sustainability technology (htt://sustech.emsd.gov.hk), were launched, while other activities such as talks, seminars and TV publicity continued throughout the year.

#### **OPPORTUNITIES AND CHALLENGES**

As some of our voluntary energy efficiency schemes may become mandatory in due course, we are getting ready for additional responsibilities in inspection, testing, law enforcement and validation of submissions. Furthermore, with increasing public awareness of energy efficiency and renewable energy, we must also step up our R&D work in order to identify suitable new energy efficiency technologies to introduce into Hong Kong.

# 提高公眾安全及節能意識 Raising Public Awareness





我們的公眾教育工作以業界及市民為重點對象。 與業界的溝通固然十分重要,因為業內人士的機 電安全及節能意識,可直接減少本港的事故數目 和加強能源效益。與此同時,我們與普羅市民保 持溝通,對提高大家日常生活的機電安全、促進 香港生活質素都有重要作用。

#### 能源效益獎擴至房地產界

「第一屆能源效益獎」在 2004 至 2005 年間舉行,吸引了 230 個參賽機構,相當成功。我們再接再厲,舉辦「第二屆能源效益獎」,表揚有心人士對能源效益及節約能源的努力。「第二屆能源效益大獎」已於 2007年1月至8月期間舉行,對象是住宅及商業樓宇。凡香港房屋委員會、香港房屋協會、領匯管理有限公司和市區重建局發展或管理的物業,均可參加。比賽的反應非常熱烈,參賽機構達1,400多個。得獎機構的表現相當出色,節能超過38%,節能措施也極有創意。頒獎典禮將於 2008年3月舉行。

We target both the trade and the general public in our public education programmes. Effective communication with the trade is obviously important as trade practitioners' safety awareness and energy management practices directly contribute to reducing incident numbers and enhancing energy efficiency in Hong Kong. At the same time, our ability to reach the general public through our communications is vital to improving people's day-to-day E&M safety and ensuring a better quality of life in our community.

# ENERGY EFFICIENCY AWARDS EXTEND TO HOUSING AND PROPERTY

Riding on the success of the first Hong Kong Energy Efficiency Awards, which was held between 2004 and 2005 and attracted 230 entries, a second competition was organised again to recognise and reward effort in energy efficiency and conservation. The second Hong Kong Energy Efficiency Awards ran from January to August 2007 and focused on two categories, namely residential and commercial properties. Buildings developed or managed by the Housing Authority, Housing Society, The Link Management Ltd and the Urban Renewal Authority were eligible to participate. The response has been enthusiastic, with more than 1,400 entries received. The winners have achieved outstanding performance, with energy saving of more than 38 per cent and exhibited innovative ideas in their energy saving measures. The award ceremony will be held in March 2008.





「第二屆能源效益獎」於 2007 年 1 月至 8 月期間舉行‧吸引了 1,400 多個參賽機構。得獎機構的表現出色‧節能超過 38%。 Over 1,400 entries took part in the second Hong Kong Energy Efficiency Awards held during January to August 2007. The winners achieved outstanding performance, with energy saving of more than 38 per cent.

2007年10月於維多利亞公園舉行的「機電安全嘉年華」,吸引了萬多名市民入場參與。 嘉年華是「機電安全香港通2007」宣傳活動的重點節目。 The E&M Safety Carnival, a highlight of the E&M Safety Campaign 2007, was held in Victoria Park in October 2007 and attracted more than 10,000 citizens.

# 教育徑極受歡迎

機電工程署總部的教育徑,備有多種互動模型及展品,繼續吸引大量本地及國內訪客。教育徑至今已接待了9,000多位訪客,而我們安排的定期導覽,也極受學校及對能源效益及可再生能源科技感興趣的團體歡迎。

#### 機電安全香港通2007

2007年我們舉辦了連續第七次的「機電安全香港通」宣傳活動,再與各大機構聯手,在全港促進機電安全及能源效益。一如往年,我們在活動期間進行了各式傳媒宣傳及公眾教育活動,並於10月在維多利亞公園舉辦「機電安全嘉年華」,吸引了萬多名市民入場參與。

與我們合辦「機電安全香港通 2007」的 15 個機構涵蓋多個行業界別,包括商會組織及來自公用事業、公共交通、房屋及遊樂設施的主要機構。它們是:中國檢驗有限公司、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、港九電器商聯會、香港液體氣(集團)有限公司、香港海洋公園、香港安全認證中心、九廣鐵路公司、電梯業協會、地鐵有限公司、香港蜆殼有限公司和中石化(香港)有限公司。



機電工程署總部大樓 教育徑內一個互動 展品,展示如何慳電。 An interactive exhibit on saving electricity, at the EMSD Headquarters Education Path.



## **EDUCATION PATH HIGHLY POPULAR**

Featuring interactive models and exhibits, the Education Path at EMSD Headquarters continues to attract a large number of local and mainland visitors. To date, the Path has received more than 9,000 guests, with our regular guided tours proving to be enormously popular among schools and organisations with an interest in energy efficiency and renewable energy technology applications.

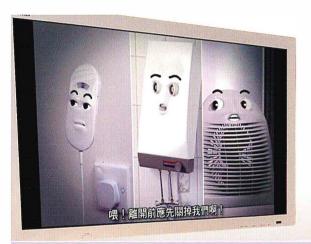
#### **E&M SAFETY CAMPAIGN 2007**

The 2007 E&M Safety Campaign marked the seventh consecutive year in which leading organisations in Hong Kong have joined hands with EMSD to promote E&M safety and energy efficiency at a territory-wide level. As in past years, the Campaign featured a wide variety of mass media publicity and educational activities, culminating in the E&M Safety Carnival held in Victoria Park in October and attended by more than 10,000 visitors.

The 15 organisations which collaborated with us in the 2007 Campaign spanned diverse sectors and included trade associations as well as leaders from the utilities, public transport, housing and recreation sectors. They were China Inspection Company Limited, CLP Power Hong Kong Limited, Exxon Mobil Hong Kong Limited, Hong Kong and China Gas Company Limited, The Hongkong Electric Company Limited, Hong Kong Housing Authority, Hong Kong and Kowloon Electrical Appliances Merchants Association, Hong Kong L.P. Gas (Holdings) Limited, Hong Kong Ocean Park, the Hong Kong Safety Institute Limited, Kowloon and Canton Railway Corporation, the Lift and Escalator Contractors Association, MTR Corporation, Shell Hong Kong Limited and Sinopec (Hong Kong) Limited.



我們越來越多的公眾教育、分享資訊、業界註冊和搜集意見的工作,都是透過互聯網進行。例如機電工程署網站的特設網頁,就有關於固定電力裝置新顏色代碼的自我評估練習,供培訓業界之用。We are increasingly using the Internet as a means of education, information sharing, trade registration and feedback. This dedicated web page on the EMSD website, for example, provides self-assessment exercises for the trade on the new cable colour code for fixed electrical installations.



我們也常以輕鬆有趣的電視宣傳短片,傳播各種機電安全和 節能的訊息。

Short announcements on television delivered in a light-hearted manner are also often used to promote various safety and energy efficiency messages.

## 更多使用互聯網

我們的宣傳活動,主要仍是透過講座、研討會和報刊及電視等傳統媒體進行。我們出版多種刊物,很多都頗受歡迎,包括定期向各屋邨住戶派發的《機電與我》、及專為業界出版的《氣體快訊》、《電力快訊》及《智能》等,還有各式各樣就個別事項編印的資訊性單張及小冊子。與此同時,我們越來越多的公眾教育、分享資訊、業界註冊和搜集意見的工作,都是透過互聯網進行。而我們出版的大部份刊物,都隨時可在機電工程署的網站上瀏覽。

近年我們也推出了多個專題入門網站,例如「能源資訊園地」互動網站、及在署方的網站附設一個關於固定電力裝置新電線顏色代碼的網頁。最新的專題入門網站,是2007年推出的「香港可持續發展科技網」(http://sutsech.emsd.gov.hk)。

#### INCREASING USE OF THE INTERNET

Talks, seminars and traditional media such as print and television continue to be at the core of our publicity programme. Some of our most popular publications include the regular E&M Safety Newsletter distributed to many housing estate tenants, newsletters for the trade such as Gas Safety Bulletin, Electricity News and Energy Wits, as well as the large variety of informative pamphlets and booklets we produce on specific topics. At the same time, we are increasingly using the Internet as a means of education, information sharing, trade registration and feedback. Most of our printed publicity materials for the general public are readily accessible on the EMSD website.

Dedicated web portals such as EnergyLand and our website on the new cable colour code for fixed electrical installations have also been created over the past few years as part of the EMSD website. The latest addition is a portal on sustainable technology (http://sustech.emsd.gov.hk) launched in 2007.





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