



安全節能在香港
A Safe and Energy Efficient Hong Kong

規管服務業務概覽

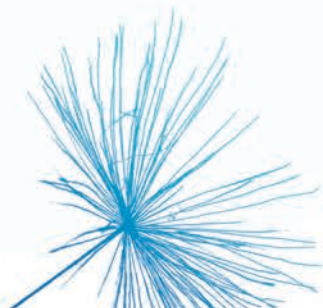
Regulatory Services - Achievements Overview



目錄

Contents

- B2 高層管理人員
Senior Management
- B3 業務回顧
Operations Review
- B8 重要活動
Highlights
-  B14 保障公眾安全
Protecting Public Safety
-  B34 推廣能源效益及節能
Promoting Energy Efficiency and Conservation
-  B46 提高公眾安全及節能意識
Raising Public Awareness of Safety and Energy Conservation





抱負、使命和信念 >>

Vision, Mission and Values

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。

使命

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。

信念

- 專業才能
- 誠信
- 可靠
- 承擔

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



1. 署長

陳帆太平紳士
機電工程署署長

Director

Mr Chan Fan, JP

Director of Electrical and
Mechanical Services

3. 助理署長

梁建民
助理署長/鐵路

Assistant Director

Mr Leung Kin-man

Assistant Director/Railways

6. 會計師

嚴國豪
部門會計師
2013年5月2日履新

Accountant

Mr Yim Kwok-ho

Departmental Accountant
w.e.f 2 May 2013

2. 副署長

薛永恒太平紳士
副署長/規管服務

Deputy Director

Mr Sit Wing-hang, Alfred, JP

Deputy Director/Regulatory Services

4. 助理署長

賴漢忠
助理署長/氣體及一般法例

Assistant Director

Mr Lai Hon-chung, Harry

Assistant Director/Gas and
General Legislation

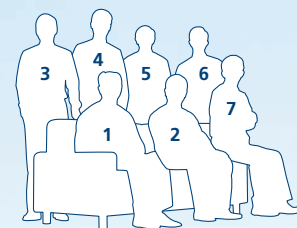
7. 秘書

周楚添
主任秘書

Secretary

Mr Chow Chor-tim

Departmental Secretary



5. 助理署長


李國強
助理署長/電力及能源效益

Assistant Director

Mr Li Kwok-keung

Assistant Director/Electricity and
Energy Efficiency



 面對機電設備老化的問題，我們不但要保障公眾機電安全，同時也須讓公眾安心並信賴我們的能力。

Faced with the challenge of aging engineering assets, not only do we have to ensure the electrical and mechanical safety of the public are not compromised, we must also make the public feel confident and trust in our capabilities.

薛永恒太平紳士

Mr Sit Wing-hang, Alfred, JP

機電工程署副署長/規管服務

Deputy Director/Regulatory Services, EMSD

2012年是忙碌而豐盛的一年。我們非常努力落實多項保障公眾安全的政策，以及推動更具能源效益的社會。

推出新法例 與時並進

我們的規管服務旨在確保公眾安全和提高社會能源效益。2012年，我們在這兩方面的工作均有相當大的突破。

The year 2012 was productive in terms of the department's operations as we made considerable contributions to the implementation of policies that ensure public safety and the promotion of a more energy efficient community.

NEW ORDINANCES TO REFLECT CHANGE OF THE TIMES

The work of our regulatory services aims to ensure public safety, as well as to promote a more energy efficient community. We have made a considerable number of breakthroughs in both aspects in 2012.



首先，《升降機及自動梯條例》（第618章）已於2012年12月實施，取代已沿用50年的《升降機及自動梯（安全）條例》（第327章），本署人員多年來在這方面的努力年終見成果。舊有的條例自生效以來，社會和技術已經歷多番改變和發展，新條例是因應這些改變和發展而制訂，標誌著本港升降機及自動梯發展的一個重要里程碑。

為更有效規管升降機及自動梯業界，我們加重了違例罰則並要求工程人員註冊。更重要的是，新條例清楚界定升降機及自動梯的責任承擔者。港府在1960年代草擬《升降機及自動梯（安全）條例》時，市場上物業管理公司數目不多，因此升降機及自動梯的法律責任是由建築物擁有人承擔的。時至今日，八成左右的建築物都由物業管理公司負責，原有法例已不再切合市場實況，因此有必要修訂該法例以準確反映現況，同時達到立法原意，規定適當的持份者須承擔相應的法律責任。新條例首次訂明升降機及自動梯擁有人和管理人的職責，並規定他們須按各自在管理和監控升降機及自動梯方面的職責，承擔法律責任。

《建築物能源效益條例》為節能發展邁出一步

針對能源效益的《建築物能源效益條例》（第610章）亦於2012年生效。這是香港首次制定法例清楚列明在建築物內主要屋宇裝備的能源效益及能源審核規定，可說是香港法律上的一大突破。

在香港，九成左右的用電量是由建築物所消耗，而商業建築物的空氣調節、照明及電力裝置和升降機及自動梯佔總用電量的比例亦甚大。《建築物能源效益條例》訂明新建築物內上述主要的屋宇裝備及進行裝修有關工程的基本能源效益規定，以及為商業建築物進行能源審核的規定，對香港的節能和環境保護工作來說，是一項重要發展。

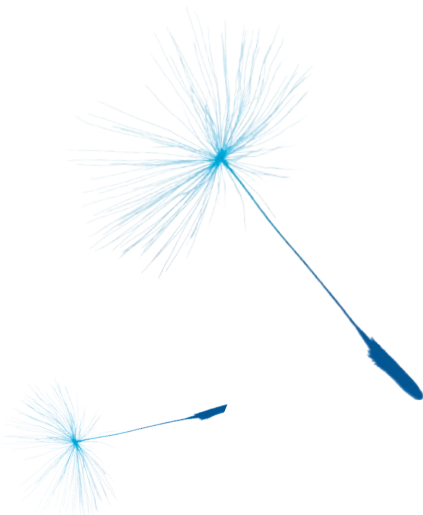
First, the hard work of our colleagues finally bore fruit in 2012 as the Lifts and Escalators Ordinance (LEO) (Cap. 618) was implemented in December 2012. This is an important milestone in the history of lifts and escalators in Hong Kong as it finally replaces the 50 year-old Lifts and Escalators (Safety) Ordinance (Cap. 327) with some much needed updating in order to meet the social and technological development since the legislation was passed.

In addition to regulating the lift and escalator industry by enforcing higher penalties for malpractice and registering the workers, more importantly and fundamentally, the LEO clearly defines the responsible party for the lifts and escalators. When the Lifts and Escalators (Safety) Ordinance was first written in the 1960s, there were not many property management companies in the market, so the liability of the lifts and escalators was held by the building owners. Today, however, about 80% of the buildings are managed by property management companies, which means the law has deviated from the true market situation and an amendment to the Lifts and Escalators (Safety) Ordinance was needed to truly reflect the market situation and to hold the correct parties legally liable as the ordinance had intended. The LEO is most innovative in this respect as it defines clearly the roles of the owners and persons managing the lifts and escalators and holds them legally liable in accordance with their roles in the management and control of the lifts and escalators.

BEEO MARKS A STEP TOWARDS ENERGY CONSERVATION DEVELOPMENT

In terms of energy efficiency, the Buildings Energy Efficiency Ordinance (BEEO) (Cap. 610) also came into operation in 2012. The BEEO is a breakthrough in Hong Kong's legislative history as it is the first ordinance that states clearly the energy efficiency requirement of all major building services installations and the energy audit requirement in buildings.

Buildings account for about 90% of Hong Kong's electricity consumption, with air-conditioning, lighting and electrical installations and lifts and escalators in commercial buildings accounting for a large proportion of the total energy consumed. Thus, by defining the basic energy efficiency requirements for these installations in new buildings and retrofitting works, and the energy audit requirement for commercial buildings, the BEEO will be making a major contribution towards energy conservation and environmental protection in Hong Kong.



車輛維修技工註冊計劃

妥善維修保養車輛是保障道路安全和促進環境保護的重要因素。因此，本署與相關行業多番磋商後，於2007年1月推行車輛維修技工自願註冊計劃，透過訂立持續專業進修的規定，確保註冊車輛維修技工具備應有資歷及最新的技術知識和技能。這促使車輛維修工場相應尋求提升服務效益的方法。為此，我們於2012年訂立「車輛維修工場約章」，要求維修工場須保持良好營商手法並顧及職業安全。

為車輛維修技工和維修工場而設的自願註冊計劃是提升行業專業地位的重要舉措，同時亦能使偏離良好營商手法的業界人士承擔責任。本署將會在適當時考慮把註冊計劃改為強制執行。

區域供冷系統

我們在啟德發展區政府重要基建項目的核心設施工程中，參與了多項工作。啟德郵輪碼頭於2013年6月開幕時，區域供冷系統已開始為碼頭設施供應冷水。區域供冷系統運用海水冷卻，能源效益較淡水冷卻塔驅動的個別水冷式空調系統和傳統的氣冷式空調系統，預計分別高20%和35%。由於啟德發展計劃是全新的區域發展，空調需求龐大，政府就藉此機會，在該區設立最具能源效益、也是全港首個同類的空調系統。

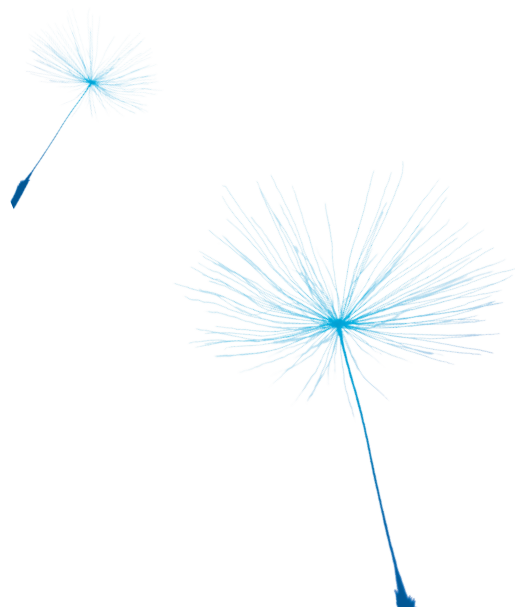
REGISTRATION SCHEME FOR VEHICLE MECHANICS

Adequate vehicle maintenance makes a significant contribution towards road safety and environmental protection. Hence, the department, after much consultation with the relevant trades, began implementing the Voluntary Registration Scheme for Vehicle Mechanics in January 2007 to ensure that registered vehicle mechanics are competent and that their technical know-how and skills are up-to-date through the requirement of continuous professional development. This prompted a corresponding demand in vehicle maintenance workshops to look for ways to improve their services for effective service enhancement, which in turn led to the introduction of the Vehicle Maintenance Workshops Charter that committed workshops to a certain standard of good trade practices and occupational safety in 2012.

The combination of a Voluntary Registration Scheme for both vehicle mechanics and workshops is an important step towards enhancing the professional status of the industry as well as holding them accountable for deviations from good trade practices, thus paving the way for the department to look into the possibility of making the registration scheme mandatory in due course.

DISTRICT COOLING SYSTEM

The department was also heavily involved in the core facilities of the government's major infrastructure project at the Kai Tak Development, and the District Cooling System commenced supplying chilled water to the Kai Tak Cruise Terminal at its grand opening in June 2013. The Sea Water Cooled District Cooling System is estimated to be 20% and 35% more energy efficient than individual water-cooled air-conditioning systems using fresh water cooling towers and traditional air-cooled air-conditioning systems respectively. Since the Kai Tak Development is a new district development with large demand for air-conditioning, the government has taken the opportunity to implement the District Cooling System which is the most energy efficient air-conditioning system in the new development and the first of its kind in Hong Kong.



保障安全 讓公眾安心

香港經濟在1970及80年代起飛，期間落成的建築物和基建設施，已開始老化。面對機電設備老化的問題，我們不但要在機電設備方面保障公眾安全，同時也須讓公眾安心並信賴我們的能力。例如，單靠保證升降機及自動梯能安全運作已不足夠，我們必須讓市民大眾放心使用這些設施。為此，我們已加強了審核巡查，並落實了一系列的安全推廣活動，以喚起社會對保養及更換已老化機電設備的需要。

除此之外，本署亦制訂了部門的危機預防、應變及管理計劃，以便同事在遇到危機時能妥善處理。計劃的首要目標是防止發生事故。同事在制訂計劃過程中，估算可能出現的問題，以及預計公眾和傳媒會關注的事項，從而採取預防措施，杜漸防微。

當日後遇到無可避免的危機時，同事便可按計劃以沉著專業的態度處理，加上適時發放相關資訊，讓公眾和傳媒感到安心，加強對本署保障市民安全的信心。

保持高度透明

我們認為政府部門應保持高度透明，因此我們一直以來都定期更新部門網頁，發放最新資訊。一般而言，我們在網頁公布予市民參考的資料包括：車用石油氣品質化驗結果、專用石油氣加氣站的車用石油氣上限價格調整、淡水冷卻塔水樣本檢測結果、能源表現監察測試結果、升降機及自動梯承辦商表現評級，以及事故調查報告。我們又會主動聯絡傳媒，務求為市民提供最新最準確的第一手資訊，建立更公開更親民的服務文化。

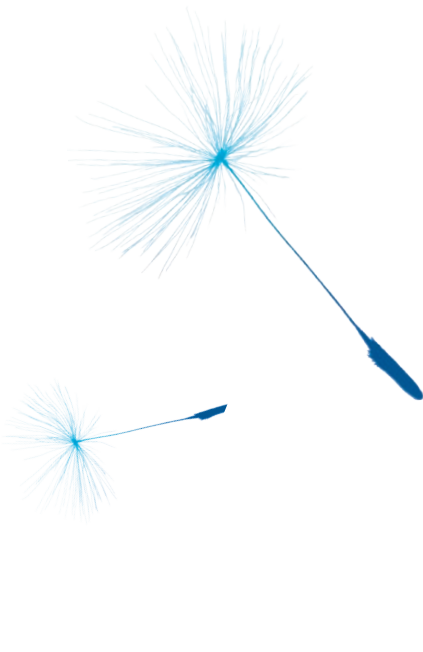
SAFETY AND PEACE OF MIND

Hong Kong's economy took off during the 1970s and 1980s. The majority of the buildings and infrastructure constructed during that boom time are facing the threat of deterioration. Faced with the challenge of aging electrical and mechanical facilities, not only do we have to ensure the electrical and mechanical safety of the public are not compromised, we must also make the public feel confident and trust in our capabilities. For example, our reassurance of the safe operation of lifts and escalators alone is not sufficient. We must provide them with the peace of mind to feel safe when using them. In this connection, we have stepped up our audit inspections and implemented a series of safety promotional programmes to arouse public attention to the need of proper maintenance and replacement of aged facilities.

Besides, we have also devised a departmental Crisis Prevention, Response and Management Plan to prepare us for the eventuality of a crisis. The prime objective of the Plan is incident prevention. During the preparation of the Plan, colleagues tried to foresee possible problems that may arise, anticipate the public's and media's concerns, and take advance steps to prevent these situations from arising. In the event of an unavoidable crisis, colleagues could follow the Plan to calmly and professionally handle the crisis, disseminate pertinent information in a timely manner during crisis situations so as to assure the public and the media of our professionalism, and that they may entrust their safety in our capable hands.

MAINTAINING A HIGH LEVEL OF TRANSPARENCY

We also believe in maintaining a high level of transparency, and have an established practice of regularly posting data on our department's website. The data we typically share includes auto LPG quality test results and dedicated LPG filling station auto LPG ceiling price movements, fresh water cooling tower water sample test results, energy label compliance monitoring test results, lift and escalator contractors performance ratings, and incident investigation reports for public access. Our proactive communication with the press serves to provide the public with accurate and up to date information first hand, thereby presenting an even more open and approachable department culture.



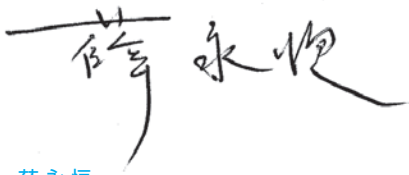
前瞻

展望未來，我們會繼續協助持份者認識其本份和責任，以及如何履行責任，去年開始推行的優化升降機計劃便是一例。該計劃旨在向公眾和持份者說明他們的法律責任、和優化升降機設施的重要性。儘管本署作為規管部門，只須監管升降機及自動梯的安全和運作，但我們也會主動舉辦業界講座，向公眾講解相關的條例。

我們會繼續在部門內推動緊密合作的文化，提高員工士氣，以及鼓勵他們持續進修和發展。我們深信，不斷追求知識和累積經驗，長遠來說對市民、本署以至整個社會都有利。

感謝支持

去年，規管服務運作暢順，新條例得以順利實施，實有賴業界和各方持份者的支持，規管服務的同事當然也值得表揚。同事盡心盡力，表現出色，部分更多走一步，憑著傑出的規管成績贏得多個獎項。我很高興看到本署人員能夠緊密合作，致力提供理想的生活環境，讓香港市民安居樂業。



薛永恒

機電工程署副署長/規管服務

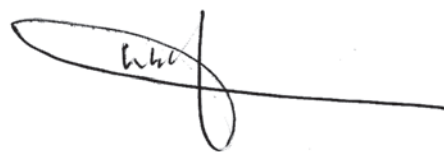
OUTLOOK

Looking ahead, we will continue to facilitate stakeholders' understanding of their responsibilities and liabilities, as well as to educate them in the ways to discharge their duties, such as the Lift Modernisation Programme that was launched last year to educate the public and stakeholders on their legal liabilities and the importance of modernising their lift equipment. Although our role as regulator only requires us to monitor the safety and operation of the lifts and escalators, we have also taken the initiative to conduct trade talks to educate the public on relevant ordinances.

We will continue to foster a cohesive culture within our department, boosting staff morale and encourage them to pursue continuous training and development. We believe the continuous pursuit of knowledge and experience will reap long-term benefits to our people, the department and society as a whole.

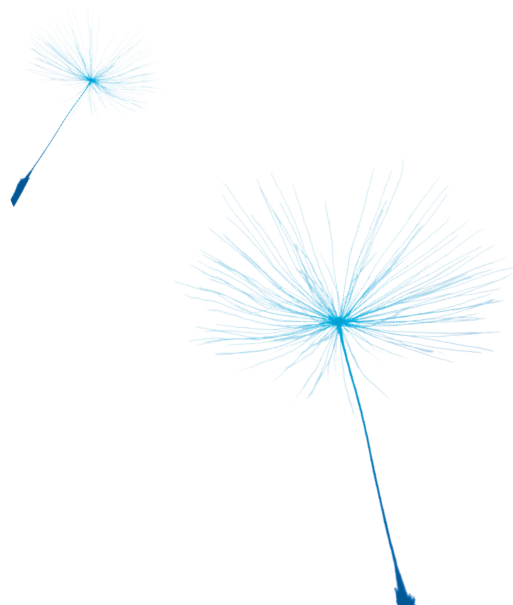
APPRECIATION AND THANKS

I would like to join our Director in expressing our gratitude to the trades and other stakeholders for their continuous support, without which our operations and implementation of new ordinances during the year would not have continued so smoothly. I would also like to thank all our colleagues for their dedication and outstanding service, and those who went the extra mile to win awards and recognition for our regulatory achievements. I am delighted to see a high level of engagement among staff throughout our organisation and their dedication to providing a safe home and peace of mind for the people of Hong Kong.



Alfred W H Sit

Deputy Director/Regulatory Services, EMSD







重要活動
Highlights



《升降機及自動梯條例》引入新管制措施

2012年4月通過的《升降機及自動梯條例》（第618章）於同年12月17日全面生效，進一步提升香港升降機及自動梯的安全水平。條例引入一系列的規管措施，包括改善升降機及自動梯工程人員的註冊制度，加強違例罰則，擴大條例的適用範圍，以及提高運作效率和執法成效。本署相信，新條例會提升香港升降機及自動梯的安全水平。我們會繼續就條例與升降機及自動梯公司、業界和市民大眾溝通，並監察條例的實施情況。

LIFTS AND ESCALATORS ORDINANCE PROMPTS ADDED CONTROL MEASURES

Enacted in April 2012, the Lifts and Escalators Ordinance (LEO) (Cap. 618) came into full operation on 17 December 2012, further enhancing lifts and escalators safety in Hong Kong. The LEO introduces a series of enhanced regulatory control measures, including strengthening the registration regime for personnel engaged in lift and escalator works; raising the penalty levels of offences; extending the coverage of legislations; and enhancing the operational efficiency and enforcement effectiveness. The department believes that the safety level of lifts and escalators in Hong Kong will be raised by the new legislation, and will continue to communicate with lift and escalator companies, the trades and general public regarding the LEO, as well as to monitor and observe its implementation.



為啟德發展區提供關鍵基建服務

重建啟德機場原址是政府重要基建項目之一，旨在善用該塊土地及催化九龍城和新蒲崗兩區的重建工作。機電工程署作為政府機電服務的提供者，轄下各部別都積極參與了該幅土地的發展準備工作，特別是期待已久並於2013年6月啟用的啟德郵輪碼頭。

2012年，我們的氣體標準事務處就發展區內的一項主要氣體喉管改造工程進行監督工作，確保工程安全完成，讓新郵輪碼頭得以安全進行全面發展。此外，啟德區域供冷系統的第一階段工程已順利完成，並已開始供應冷凍水給啟德郵輪碼頭及公共屋邨內的零售範圍使用。

CONTRIBUTING TO MAJOR INFRASTRUCTURE DEVELOPMENT AT KAI TAK AREA

The redevelopment of the former Kai Tak Airport area is one of the government's major infrastructure projects aiming to optimise the potential of the site while, at the same time, acting as a catalyst for the regeneration of the Kowloon City and San Po Kong districts. As the government's E&M service provider, various EMSD divisions were deeply involved with the preparation of the site, particularly with the much anticipated opening of the Kai Tak Cruise Terminal in June 2013.

To this effect, in 2012, our Gas Standards Office was involved in overseeing the safe completion of a major gas pipeline diversion project at the site which will enable the safe and full development of the new Cruise Terminal. Furthermore, our Energy Efficiency Office has successfully completed the first stage of the District Cooling System for the Kai Tak Cruise Terminal and the retail areas of the public housing estates in the development site.

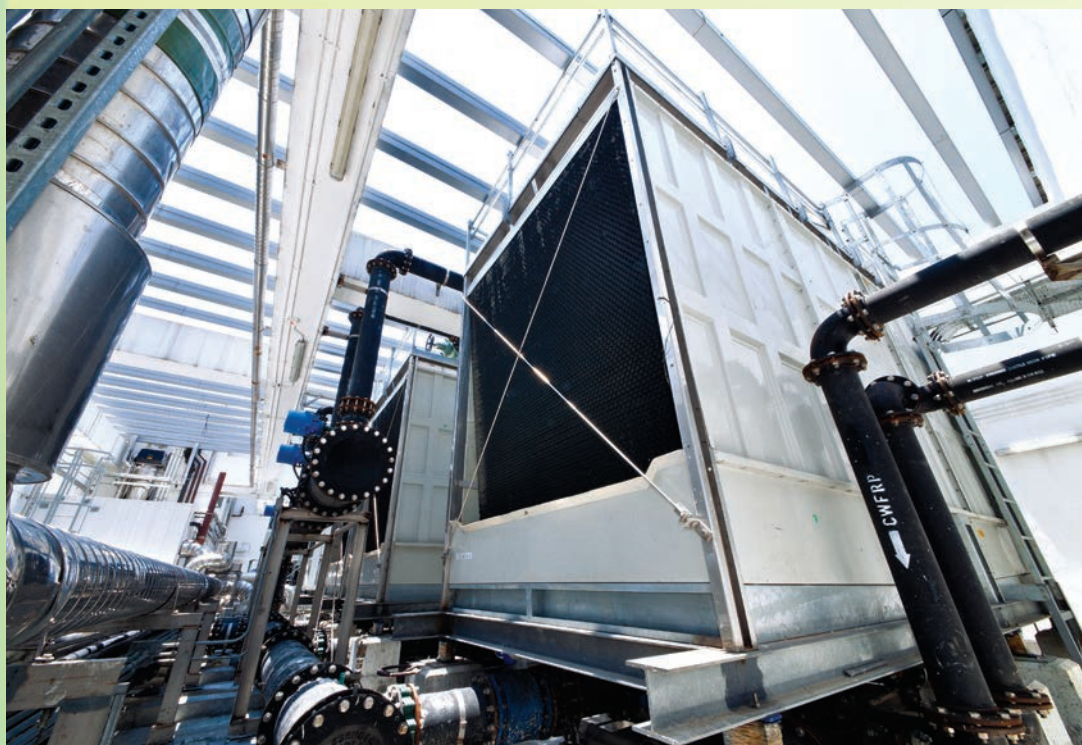


《建築物能源效益條例》為綠化香港跨前一大步

本署於2012年完成的另一項重要工作是於9月21日實施《建築物能源效益條例》（第610章）。條例為新建建築物或正進行主要裝修工程的現有建築物，訂定了電力、空氣調節、照明和升降機及自動梯裝置等屋宇裝備裝置的基本能源效益標準，對香港的環境保護工作是個重要里程碑。條例亦要求商業建築物的擁有人進行能源審核，以便找出能源管理機會。鑑於建築物佔全港的總用電量達九成之多，提升建築物能源效益不但有助推動整體能源效益，還大大減少本地的溫室氣體排放。

BUILDINGS ENERGY EFFICIENCY ORDINANCE MARKS A BIG STEP TOWARDS A GREENER HONG KONG

Another major achievement by the department in 2012 was the introduction of the Buildings Energy Efficiency Ordinance (BEEO) (Cap. 610) on 21 September 2012. The BEEO marks an important milestone in Hong Kong's environmental protection as it sets a energy efficiency standard for building services installations such as electrical, air-conditioning, lighting and lift and escalator installations in new buildings and existing buildings undergoing major retrofitting works. The BEEO also requires owners of commercial buildings to carry out energy audits to identify energy management opportunities. As buildings account for about 90% of the total electricity consumption in Hong Kong, improving buildings' energy efficiency will not only help promote energy efficiency as a whole, but also make a huge impact in reducing the city's greenhouse gas emissions.



與電業界攜手推動持續進修

「註冊電業工程人員持續進修計劃」已於2012年1月1日開始實施。根據計劃，註冊電業工程人員須於申請註冊續期前完成兩個單元的培訓課程，有助推動電業界持續進修的文化。秉承我們在新計劃發展階段已積極與業界合作、並進行充分諮詢的一貫作風，電力法例部將繼續與業界聯會和工會組織保持密切聯繫，並舉辦導師培訓課程，以順利落實持續進修計劃。

JOINT EFFORT WITH ELECTRICAL TRADE TO PROMOTE CONTINUING PROFESSIONAL DEVELOPMENT

1 January 2012 hailed the start of the Continuing Professional Development Scheme for Registered Electrical Workers (REWs). The scheme requires REWs to complete two modules of training before applying for renewal of registration, while at the same time

fosters a continuous learning culture for the electrical trades. Following the department's usual practice of full cooperation and consultation with the trades during the development stage of new schemes, the Electricity Legislation Division continued to remain in close communication with trade and union organisations to enable the smooth running of the scheme; as well as to organise a Train-the-Trainer programme with them in order to ensure the successful implementation of the scheme.



積極執行安全措施，致力減低事故率

鑑於公眾安全是機電署的首要考慮，我們投放並善用不少資源，推出有利公眾的政策。為了防止意外事故，我們更主動執行各種安全措施。

例如，氣體標準事務處主動在地盤為工程承辦商舉辦安全講座，減低建築工程期間氣體喉管意外損毀的情況。此外，在預防建築地盤的地下電纜損毀事故方面，電力法例部已聯同電力公司進行地盤巡查，並舉辦安全講座給工程承辦商和政府工務部門，以提高他們的安全意識和對法例要求的認識。再者，在加強建築工地電力安全方面，電力法例部也發信給所有註冊電業承辦商及註冊電業工程人員、相關商會及工會等，提醒業界必須確保建築工地電力安全，並聯同建造業議會舉辦安全講座，以讓有關業界增加對事故成因的了解及提高他們的安全意識。

與此同時，鐵路科則嚴格規管鐵路安全及執行《香港鐵路條例》，為大幅減少因設備故障及員工行為引致的鐵路事故作出貢獻。

昂平360纜車系統於2011年和2012年初發生一連串故障後，在本署監督下進行了一系列的更換工程、檢查和改善措施。因此，自2012年4月纜車重新投入服務後，故障已顯著減少。



PROACTIVE SAFETY MEASURES IMPLEMENTED TO REDUCE INCIDENT RATES

With ensuring public safety as one of the department's top priorities, EMSD utilises much resources in initiating policies that are deemed beneficial for the public. We proactively implement safety measures to prevent incidents.

For instance, the Gas Standards Office took the initiative and gave safety talks to works contractors onsite which contributed to the decrease in accidental damage of gas pipes during construction works. To prevent underground cable damage incidents at construction sites, the Electricity Legislation Division has carried out joint site inspections with the power companies and given safety talks to contractors and government works departments in order to enhance their safety awareness and understanding of the legislative requirements. In addition, to enhance electrical safety at construction sites, the Electricity Legislation Division has issued letters to all Registered Electrical Contractors, Registered Electrical Workers, related contractors' associations and workers' unions to remind the trade members of the electrical safety at construction sites. We also deliver safety talks jointly with the Construction Industry Council with a view to helping the trade members understand more about the causes of incidents as well as enhancing their safety awareness.

At the same time, the Railways Branch's stringent regulation of railway safety and enforcement of the Mass Transit Railway Ordinance have contributed to the considerable fall in the trend of railway incidents caused by equipment failure and staff behaviour.

After a number of stoppage incidents in 2011 and early 2012, Ngong Ping 360 underwent a series of replacement works, examinations and implementation of improvement measures under the supervision of the department. As a result, the number of stoppage incidents has been drastically reduced since the ropeway resumed service in April 2012.





保障公眾安全 >>>
Protecting Public Safety





電力法例部工程師定期巡查香港電力公司的供電設施，以保障市民安全。
Electricity Legislation Division engineers carrying out regular inspections on Hong Kong power companies' electricity supply facilities to ensure public safety.



機電署在大亞灣應變計劃跨部門演習中擔當重要角色。
EMSD played an important role in the Daya Bay Contingency Plan Interdepartmental Drill.

電力安全

數年前，電力法例部開始籌備引進的「註冊電業工程人員持續進修計劃」現已完成，進修計劃並於2012年1月1日開始實施。根據計劃規定，各註冊電業工程人員必須完成指定的安全培訓，方可申請註冊續期。進修計劃為註冊電業工程人員提供包含兩個單元的培訓，即「法例及安全規定」及「技術知識」，令規管業界標準的工作向前邁進一步，並有助推廣工程人員的持續進修文化。

本部亦聯同業界團體舉辦導師培訓課程，方便實施新的進修計劃，並且確保全港都有充足數量的培訓單元供註冊電業工程人員報讀。結果，有13個團體共298名會員參加並成功修畢導師培訓課程。這些認可導師其後為超過27,000名註冊電業工程人員開辦了260次培訓班，大大提高這項計劃的成效。

參與大亞灣應變計劃大型演習

2012年4月26及27日，機電署一組工程人員參與為期兩天的跨部門演習，旨在測試一旦大亞灣核電站發生嚴重事故而引致輻射外洩時，大亞灣應變計劃的成效。這次演習有30多個政府政策局及部門共約2,000名人員、當地居民組織、志願人士及其他有關團體參與，是歷來最大型的演習，用以測試在突發而緊急的情況下，各有關方面的應變能力和協調工作。在是次演習中，機電署啟動了緊急應變中心，測試本署的應變能力，包括在署內以至與其他政策局及部門之間的協調。該組工程人員密切監察事態的發展，並為其他政策局提供技術支援，例如就有關事故提供在工程方面的技術數據詮釋。為期兩天的演習圓滿結束，機電署的表現備獲好評。

事故趨勢

電力事故數字經過近幾年持續下降後，固定電力裝置事故及第三者損毀供電電纜事故數字於2012年見輕微上升。

電氣產品事故數字較去年輕微增加，主要是由於年初天氣惡劣所導致。

ELECTRICAL SAFETY

Preparation work for the introduction of the Continuing Professional Development (CPD) Scheme for Registered Electrical Workers (REWs) which began in previous years came to a conclusion on 1 January 2012 when the CPD Scheme came into effect. It became mandatory for all REWs to complete the requisite safety training before applying for a renewal of registration. The scheme provides REWs with a two-module programme of training, covering "Legislative and Safety Requirements" and "Technical Knowledge" which is the correct step towards regulating the trade standards, as well as fostering a continuous training culture with the workers.

In order to facilitate the implementation of the new CPD Scheme, and to ensure an adequate number of training modules to be readily available for REWs to enrol throughout the city, the Electricity Legislation Division also launched a Train-the-Trainer programme with trade organisations. As a result, a total of 298 members from 13 organisations joined and successfully completed the Train-the-Trainer programme. These Recognized Trainers subsequently organised 260 training sessions for over 27,000 REWs, greatly enhancing the effectiveness of the scheme.

Participation in Large Scale Daya Bay Contingency Plan Exercise

On 26 and 27 April 2012, a team of engineers from EMSD participated in the two-day interdepartmental exercise which

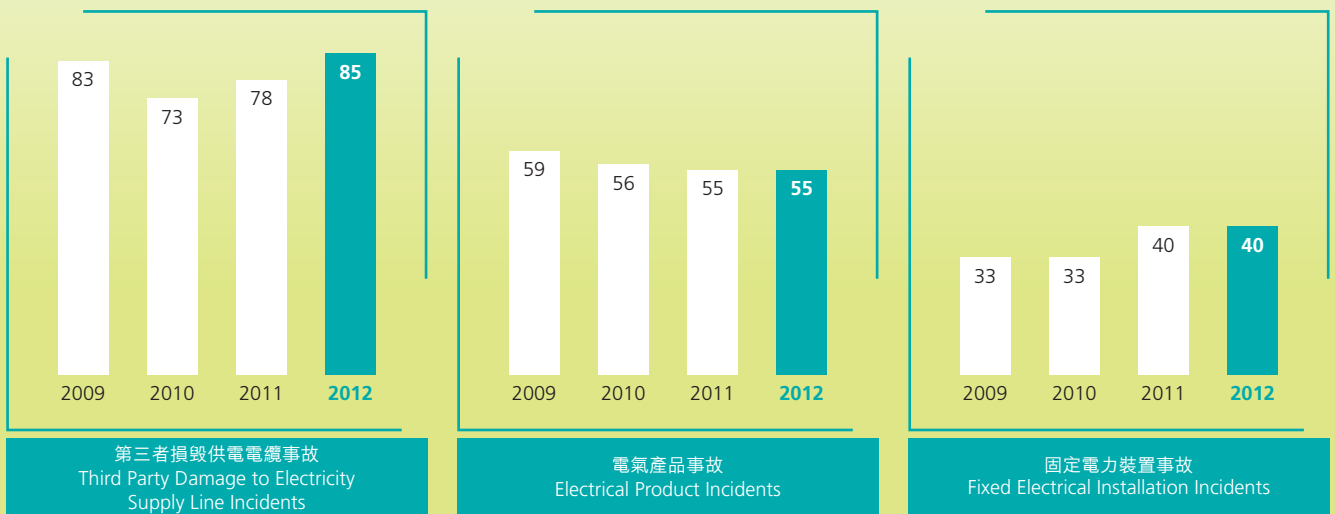
aimed to test out the effectiveness of the Daya Bay Contingency Plan (DBCP) in the event of a serious off-site accident and subsequent radiological release at the nuclear power plant at Daya Bay. With the participation of about 2,000 officers from more than 30 government bureaux and departments, as well as local resident bodies, volunteers and other concerned parties, the exercise was the largest event ever held to test the response capability and coordination among the concerned parties under emergency and stress conditions. During the exercise, EMSD activated an emergency response centre, testing out the department's response, including coordination within EMSD and with other bureaux and departments. A team of engineers closely monitored the development of the situation and provided technical support to other bureaux such as the interpretation of technical data relating to the engineering aspects of the incident. The two-day exercise ended smoothly and input from EMSD was well received.

Incident Trend

After several years of steady decline, the number of electrical incidents for fixed electrical installations and third-party damage to electricity supply lines showed a slight increase in 2012.

Electrical product incidents experienced a slight increase from the previous year mostly due to the adverse weather condition early in the year.

電力事故數目 Electrical Incidents Figures





電力法例部定期舉辦研討會，向工人及業界灌輸最新機電法例知識。
Electricity Legislation Division organises regular seminars to educate workers and trades on the latest electrical and mechanical legislations.

加強電力安全培訓

安全是本署關注的重要事項，電力法例部繼續與承辦商及業界團體舉辦各種電力安全講座。此外，有鑑於下半年度內發生的致命電力意外，電力法例部也加強提醒電業工程人員工作時必須遵守良好的操守及安全文化，並為此展開一系列的宣傳工作，提高他們的電力安全意識，例如派送宣傳資料給註冊電業承辦商、註冊電業工程人員及工會，同時與其他政府部門如勞工處及建造業議會合辦專題研討會。

2012年11月19日，電力法例部與港九電器工程電業器材職工會及香港電器工程商會合辦周年「電力規例研討會」，首次在荃灣大會堂演奏廳舉行，有超過1,000名電業界人士出席，場面十分熱鬧。研討會的主題為「更專業更安全共建電業新里程」，當天所有講題都圍繞專業及安全兩個重點。

新發展帶來新挑戰

本港日後將會進行大量基建工程，這或會令建築地盤內第三者導致的電纜損毀事故有所增加。電力法例部需要遏止可能增加的電纜損毀事故，這是一項挑戰。為此，本部別會採取各項預防措施，例如聯同電力公司進行突擊實地巡查、不時檢討所有電纜損毀事故、找出有問題的承辦商以提高其安全意識，例如發出勸諭信、安排安全講座、以及密切監察他們的安全表現，並會按需要進一步加強宣傳工作。

2012年年內，本港電氣產品市場引進了多項新科技及新潮流，為消費品市場帶來了多款新的小型電氣產品，例如LED燈、家用美容儀器及咖啡機等。電力法例部會繼續密切監察小型電氣產品市場上的安全標準。

花絮 Side Story



機電署（電力法例部）
機電工程師陳家強先生（左）及管理支援主任曾穎棋小姐
Mr Steve Chan, Electrical & Mechanical Engineer (Left) and
Miss Theodora Tsang, Management Support Officer
EMSD (Electricity Legislation)

自行設計「e家」一家人以宣傳電力安全

電力法例部慣常在各種宣傳物品採用專利動畫人物，以吸引青少年。雖然這些受歡迎的動畫人物有助推廣安全信息，但是亦有其局限。機電工程署（電力法例部）機電工程師陳家強先生負責電力法例部的宣傳及學校外展計劃，他解釋說：「我們有意為外展計劃製作新動畫，但採用專利動畫人物卻十分昂貴，而且費時失事，因此我們在2010年決定自行創作自家動畫人物。」

電力法例部外展計劃安全大使曾穎棋小姐表示：「我們需要多個動畫人物，可以提點大家在不同情況下，香港一般家庭必須注意的事項，而「e家」的概念便由此誕生。「e家」包括五位家庭成員，即婆婆、爸爸、媽媽、女兒安安和兒子全全。他們的經歷不單只教導年幼兒童應如何妥善使用電氣產品，同時三名家長亦為兒童在日常生活中的正確做法樹立榜樣。

「e家」一家人出現在電力法例部的多款教育短片、海報、單張、紀念品，以及電氣安全宣傳網站「電力資訊站」。陳先生解釋說：「市民對『e家』一家人的反應熱烈，我們感到十分欣慰，並計劃在日後的宣傳活動中，繼續採用這些人物。我們已製作更多「e家」一家人的紀念品，例如棋盤遊戲、間尺、記事簿及塑膠文件夾，供宣傳活動上派發。」

Heighten Training on Electrical Safety

With safety as one of the department's top concerns, the Division continued to conduct various talks with contractors and trade organisations on electrical safety. Fatal incidents during the latter half of the year also alerted the Division of the need to remind electrical workers on the importance of good practices and safety culture during work. Thus, a series of promotions was carried out to raise awareness on electrical safety, such as sending promotional materials to Registered Electrical Contractors, REWs and Trade Unions, as well as jointly organising topical seminars with other departments like the Labour Department and the Construction Industry Council.

The Annual Technical Seminar jointly organised by the Division with the Hong Kong and Kowloon Electrical Engineering and Appliances Trade Workers' Union and the Hong Kong Electrical Contractors' Association was held for the first time in the Auditorium of the Tsuen Wan Town Hall on 19 November 2012 and the event was well attended by over 1,000 enthusiastic members from the electrical trade. The theme of the seminar was "Enhancing Professionalism and Safety – Towards a New Milestone for the Electrical Trade" and all discussions on the day were centred on professionalism and safety.



New Developments Bring New Challenges

In the years ahead, there will be a lot of infrastructure construction work which may increase the chance of third-party damage to electricity power cables on construction sites. It is a challenge to the Division to contain the possible increase in electricity power cable damage incidents. As such, the Division will carry out various preventive measures, such as conducting ad hoc joint site inspections with the power companies, reviewing all electricity power cable damage incidents, identifying target contractors for safety awareness promotion exercises such as sending advisory letters, arranging safety talks and closely monitoring their safety performance. The Division will also further strengthen publicity work as need arises.

The year 2012 also saw the introduction of a range of new technologies and fashionable trends in the electrical appliance market that brought a range of new small appliances such as LED lights, home-use beauty gadgets and coffee machines onto the consumer market. The Division will continue to remain vigilant in monitoring the safety standards of the small appliance market.

Self-Designed "e-Family" to Promote Electric Safety

In order to attract teenagers, the Division used to use licensed cartoon figures in various publicity materials. Although the popularity of these cartoon characters has helped facilitate the promotion of safety messages, it also created limitations. "We intended to produce new animation for the outreach programme, but using licenced cartoon characters was very costly and time consuming," explained Mr Steve Chan, the EMSD Engineer responsible for the promotion and school outreach programme in the Electricity Legislation Division, "that was why we decided to develop our own cartoon characters in 2010."

Ms Theodora Tsang, the Division's Safety Ambassador for Outreach Programme said, "We needed a range of cartoon characters that could highlight the different things people should beware under different scenarios, which could happen to any Hong Kong family. That was how the concept of the "e-Family" was born." The "e-Family" has five members, Grandma, Daddy, Mummy, On On, the daughter and Chuen Chuen, the son. Their adventures not only teach young children how to properly use electrical appliances, but the three adults also set an example for the children on good practices in everyday life.

The "e-Family" is featured in many of the Division's educational videos, posters, leaflets, souvenirs and on the electrical safety promotion website, namely the Electricity Information Corner. "We are very pleased with the good response we have received from the public on the "e-Family," and plan to continue to use these characters in our future promotion campaigns," explained Mr Chan, "We have produced more "e-Family" souvenirs such as board games, rulers, note pads and plastic folders as giveaways during publicity events."



為進口及儲存石油氣而設的儲藏庫。
Terminal for importation and storage of LPG.

氣體安全

氣體事故數字處於低水平

2012年，氣體事故數字顯著減少，從2011年的275宗下跌至2012年的226宗。這個結果顯示，本署的氣體標準事務處近年採用以風險管理為本的預防及改善措施已見成效。

加強與業界和其他政府部門的溝通和合作

氣體標準事務處持續與業界保持緊密溝通，以便推動業界遵守氣體安全規例及良好作業守則。由於預期全港的建築工程量大增，氣體標準事務處於是加強在建築地盤宣傳氣體安全，例如為工程承辦商舉辦更多安全講座，闡述如何避免損毀氣體喉管。

鑑於氣體標準事務處的工作與其他政府部門息息相關，因此，該事務處亦集中加強與各部門的溝通與合作。例如與屋宇署合作，透過強制驗樓計劃推廣氣體喉管的檢查工作，以及與勞工處協議，假如任何一方發現可能導致食肆廚房發生意外的違規行為，便會通知對方。

加緊巡查石油氣加氣站

2012年12月，雪佛龍加氣站提供的石油氣質量出現問題，引起市民關注。氣體標準事務處迅速採取行動，檢討雪佛龍提交的調查報告，並考慮獨立專家的意見。此外，更加强監察石油氣加氣站的石油氣品質，避免再發生同類事件，同時規定所有石油氣供應公司必須檢討進口石油氣的監察品質程序，進一步加強目前的做法。



定期與氣體供應公司進行事故應變演習，提升應變能力。
Carrying out regular incident drills with gas supply companies to enhance readiness of emergencies.

重大基礎建設

2013年，新啟德郵輪碼頭落成啟用。氣體標準事務處在這方面的重要任務之一，是監察煤氣公司安全完成一項主要海底氣體喉管改道工程，以騰出地方全面發展郵輪碼頭。

在內地西氣東輸二線天然氣輸港的項目上，氣體標準事務處緊密配合項目的進展，批准青山發電有限公司興建一條新的海底天然氣喉管和相關的天然氣發電設施，這是政府控制空氣污染的策略之一，規定本地電力公司使用較清潔的燃料，以減少發電廠的污染物排放。



氣體標準事務處協調石油氣加氣站地底石油氣缸的十年安全測試，以盡量減少對業界和公眾的影響。
The 10 year integrity inspections of underground LPG Tank at LPG filling stations are carefully coordinated by Gas Standards Office to minimise impact to trade and public.



▶ 連接西氣東輸二線香港段的新天然氣發電設施。
New natural gas facilities for power generation connecting to the Hong Kong section of the Second West-East Gas Pipeline.



▶ 氣體標準事務處稽核氣體供應公司所進行的氣體安全檢查。
Gas Standards Office auditing the gas safety inspection work being carried out by a gas supply company.

GAS SAFETY

Gas Incidents at Low Level

The year 2012 saw a remarkable decrease in the number of gas incidents, dropping from 275 in 2011 to 226 in 2012. The result underlined the effectiveness of the risk-based preventive and rectification measures which the Gas Standards Office adopted in recent years.

Strengthened Communication and Collaboration with Trades and Other Government Departments

The Office continued to maintain close communication with the trades to promote compliance and good trade practices in terms of gas safety. It foresaw a heightened construction activity in the territory and stepped up gas safety promotions at construction sites such as conducting more safety talks to works contractors on avoidance of damage to gas pipes.

Recognising the close correlation between its work and that of other government departments, the Office also focused on strengthening communications and collaborations with the departments. For instance, with the support of the Buildings Department, the Office promoted the inspection of gas pipes by means of the Mandatory Building Inspection Scheme. Additionally, arrangements were also made with the Labour Department whereby either department would notify the other should it identify certain kinds of irregularities that might pose hazards in restaurant kitchens.

Tightened Inspection on LPG Filling Station

Concerns were raised in December 2012 regarding the quality of liquefied petroleum gas (LPG) supplied by Chevron's filling stations. The Office took prompt action by reviewing the investigation report provided by Chevron and considering the advice from independent professionals. Furthermore, the Office also strengthened the monitoring of LPG quality at all LPG filling stations in order to prevent similar incidents from occurring, as well as requiring all LPG supply companies to review their monitoring procedures on the quality of imported LPG, thereby strengthening current practices.

Major Infrastructure

The year 2013 saw the opening of the new Kai Tak Cruise Terminal. One of the Office's major tasks in this connection was to oversee the safe completion of a major gas pipeline project undertaken by Towngas, which aimed to divert cross-harbour pipelines to make way for the full development of the Terminal.

The office closely facilitated the project implementation of natural gas supply from the Mainland's Second West-East Gas Pipeline, approving the construction of a new submarine natural gas pipeline and new associated natural gas facilities for power generation by Castle Peak Power Company Limited, which was part of the government's strategy to control air pollution that requires local power companies to use cleaner fuels to reduce pollutant emission from power plants.

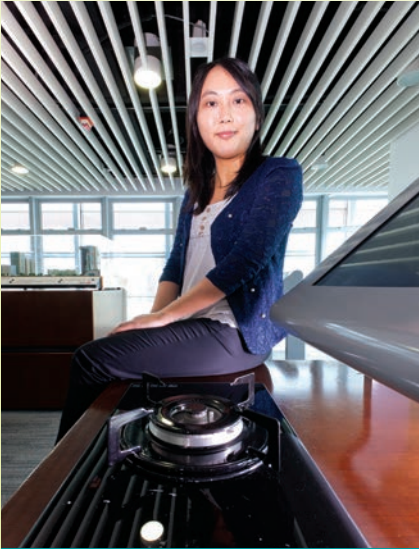


▶ 工程師親臨地盤視察海底氣管改道工程進度，確保氣體安全，以配合啟德郵輪碼頭發展。
Engineers carrying out on-site gas safety inspection of the submarine gas pipeline diversion works for the development of the Kai Tak Cruise Terminal.



▶ 與建新海底天然氣喉管時使用的的敷管船。
Laybarge for construction of new submarine natural gas pipeline.

花絮 Side Story



機電署（氣體標準事務處）
機電工程師吳玉華女士
Ms. Alice Ng, Electrical & Mechanical Engineer
EMSD (Gas Standards Office)

大埔區大範圍煤氣供應中斷事故

氣體標準事務處當值工程師吳玉華女士憶述：「2012年6月4日早上6時許，我被一個緊急電話弄醒，得知大埔區發生煤氣供應中斷事故。」

作為《氣體安全條例》的執法機關，氣體標準事務處的工程師會輪流候命，處理事故。吳女士解釋說：「在接到緊急電話後，我們會立即就事故進行調查，監察修復進度，並建議預防措施。」

這是吳女士到任氣體標準事務處以來所處理的最大型事故。吳女士憶述：「我是第一個接報到場的人，我看到路面毀爛，水不斷湧出。」事故的影響廣泛，水與碎石已淹浸大埔區大範圍的煤氣供應網絡，影響14個公共屋邨和私人屋苑約9,800個住戶和24家商戶。煤氣公司在現場設立臨時控制中心，並動員超過400名工人及操作人員，努力在安全及迅速的情況下恢復煤氣供應。此外，事故吸引大批傳媒、當區社區人士和區議員的關注。「這難免對我們增添壓力，促使我們要應對相關的挑戰。」

吳女士表示：「在整整兩天期間，我們從早上8時30分至晚上10時都留守在現場，直至事故解決為止。」她與同事合力，密切監察維修工程，包括煤氣供應系統的清洗和穩定性測試，並且探訪個別用戶，查核煤氣供應系統是否妥善，確保公眾氣體安全。吳小姐表示：「煤氣供應最終在2012年6月6日中午全面恢復。」

吳女士說：「這是一個難忘的經驗，因為是次事故讓我們有機會把緊急應變計劃付諸實行，同時加強各有關人士的溝通，以避免同類事故再發生。」

Large-scale Gas Supply Interruption Incident in Tai Po

"On 4 June 2012 at about 6:00am, I was woken up by an emergency call and was told that town gas supply in Tai Po was interrupted," recalled Ms Alice Ng, a duty engineer of the Gas Standards Office.

As the enforcing body of the Gas Safety Ordinance, engineers of the Gas Standards Office take turns to stand-by in the event of incidents. "Upon receiving an emergency call, we will immediately carry out an investigation into the incident, monitor its recovery progress and make recommendations on preventive measures," Ms Ng explained.

It was the biggest incident Ms Ng had handled since joining the Office. "I was the first responder arriving at the scene. I saw that the road slab was destroyed and water was gushing out," Ms Ng recalled. The impact of the incident was vast, as water and gravel had flooded into a large area of the town gas supply network in the Tai Po area, affecting about 9,800 households and 24 businesses in 14 public and private estates. In an effort to resume gas supply in a safe and quick manner, the gas company set up a temporary control centre on site and mobilised more than 400 workers and operators. Also, the incident attracted a lot of attention from the media, local communities and district councillors. "This unavoidably represented an added pressure on us, which drove us to meet the associated challenges."

"We remained on site for the entire two-day period from 8:30am to 10:00pm until the incident came to a conclusion," Ms Ng said. She and her colleagues worked to ensure the public's safety by closely monitoring the repair works, including cleaning and soundness testing of the gas supply system, as well as visits to individual customers to check the integrity of the gas supply system. "Gas supply was fully resumed at noon of 6 June 2012," Ms Ng said.

"It was an unforgettable experience as the incident provided an opportunity for us to put our emergency plan into practice and to enhance communication with the concerned parties to prevent the recurrence of similar incidents," Ms Ng said.



機電署（氣體標準事務處）
機電工程師謝振華先生
Mr Tse Chun-wah, Electrical & Mechanical Engineer
EMSD (Gas Standards Office)

盡量減少檢查石油氣缸對市民帶來的影響

政府鼓勵柴油的士及公共小巴改用石油氣，提倡更廣泛使用清潔能源。自2000年以來，為配合石油氣車輛計劃，石油氣加氣站網絡一直不斷建造。根據《氣體安全條例》的規定，加氣站的地底石油氣缸須定期進行安全測試。目前全港正在營運的60個加氣站中，有12個專用加氣站，佔本港石油氣車輛市場的70%。氣體標準事務處工程師謝振華先生解釋說：「假如任何一個專用加氣站關閉兩個月，為地底石油氣缸進行檢查，或會造成嚴重交通問題，因為在交更期間突然有大量的士和小巴湧至。假如在同一地區內有多過一個專用石油氣加氣站關閉，交通或會變得混亂。」

雖然氣體標準事務處的主要職責是規管氣體安全，但鑑於機電署的工作信念與文化，氣體標準事務處早於2008年已開始與石油氣加氣站營辦商及各石油氣車輛業界及工會聯繫，擬定一個計劃總綱，盡量減少關閉專用石油氣加氣站所帶來的影響。「我們竭力減少影響，不單只因為這些加氣站對的士及小巴業界的營運影響甚大，同時亦因為道路交通擠塞也會影響市民。」

「儘管我們作好準備，但卻沒法準確預測司機會如何反應，又或交通流向會如何改變。」氣體標準事務處與警方及運輸署就可能發生的交通問題緊密合作，與石油氣車輛業界聯繫，分期關閉石油氣加氣站，盡量減少影響，並且調派職員監察有關情況。謝先生表示：「我們從中學會與業界合力解決問題，並加強與各持份者的溝通和聯繫，這有利我們日後的工作和合作。」

Minimising Public Impact of LPG Tank Inspection

In order to promote the wider use of clean energy, the government introduced incentives for diesel taxis and public light buses to convert to Liquefied Petroleum Gas (LPG). Concomitant with the LPG Vehicle Scheme, a network of LPG filling stations has been progressively building since 2000, with their respective underground LPG tanks time-tagged for mandatory integrity inspections as required by the Gas Safety Ordinance. Out of the 60 LPG filling stations currently operating in Hong Kong, there are 12 dedicated LPG filling stations that account for 70% of the total auto-LPG market share in Hong Kong. "If any of these dedicated LPG filling stations was closed for two months to facilitate inspection of the underground LPG tank, it might cause severe traffic problems due to the sudden influx of taxis and public light buses during shift-change hours. If more than one dedicated LPG filling station was closed in the same locality, traffic might become chaotic," Mr Tse Chun-wah, engineer of the Gas Standards Office explained.

Although the Office's main duty is to regulate gas safety, EMSD's strong work ethics and culture have led the Office to begin liaising with LPG filling station operators, and various LPG vehicle trades and unions as early as 2008 to work out a master plan to minimise the impact of the dedicated LPG filling station closures. "We went to great lengths to try to minimise the impact, not only because these stations are crucial to the smooth operation of taxi and public light bus trades, but also because road traffic congestion will also affect the public."

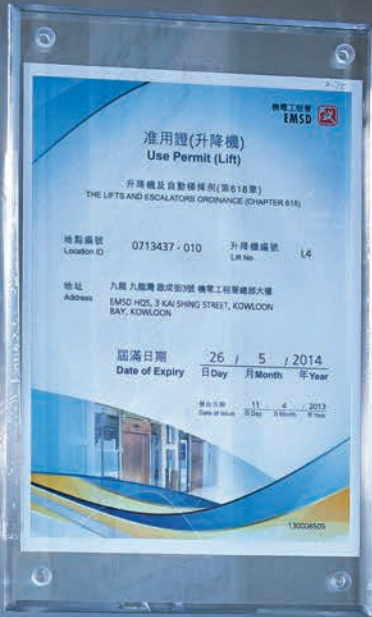
"Regardless of our preparation, there are no accurate ways to predict the way drivers will react or the direction the traffic will go." The Office worked closely with the Police and Transport Department on possible traffic issues, liaised with the LPG vehicle trades to close the dedicated LPG filling stations in stages to minimise impact, and deployed staff to monitor the situation. "We learned to resolve problems together with the trades and strengthen our communication and relationship with all stakeholders, which would benefit our future work and cooperation," said Mr Tse.



保障公眾安全 **Protecting Public Safety**

嚴禁吸煙
NO SMOKING
最高罰款 **MAXIMUM PENALTY \$5000.**
WHEN THERE IS A FIRE
DO NOT USE THE LIFT
如遇火警
切勿使用升降機

LIFT NO. 4
1600 KG 21 PERSONS
1600 公斤 21 人



WHEN LIGHT BLINKS
PLEASE SPEAK OR
PRESS ALARM BUTTON AGAIN
燈閃亮時請說話或再次按警號鈕



《升降機及自動梯條例》引進新的准用證，清楚列明它的屆滿日期，以便使用者監察。

The new Lifts and Escalators Ordinance introduces a new use permit that clearly indicates its validity period to promote "user surveillance".



新法例有助確保升降機及自動梯妥善維修狀況及安全操作。

The new legislation helps to ensure that lifts and escalators are kept in a safe and well maintained manner.

機械安全

實施《升降機及自動梯條例》(第618章)

2009年，機電署開始為《升降機及自動梯（安全）條例》作全面檢討。經多年的籌備和詳細討論，並與業界進行多次會議及溝通後，《升降機及自動梯條例》（第618章）（下稱「條例」）及其兩條附屬規例，《升降機及自動梯（一般）規例》和《升降機及自動梯（費用）規例》已於2012年12月17日開始生效，取代《升降機及自動梯（安全）條例》。

「條例」規定，升降機及自動梯的管理責任須由業主、業主立案法團和物業管理公司共同分擔。「條例」訂明升降機和自動梯的管理人連同擁有人都須負責任，目的在於確保有關裝置安全操作及獲得妥善維修。再者，最高罰款額亦增至200,000元，以發揮更大的阻嚇作用。

此外，「條例」亦訂立一項工程人員註冊制度，工程人員須按其資歷進行註冊。「條例」開始實施的首六個月內，在5,000名工程人員當中，約有一半已根據新制度註冊，而機電署的目標是在2013年年底完成全港所有5,000名工程人員的註冊工作。

「條例」針對升降機和自動梯的維修及操作作更嚴密的規管，以提高公眾安全及更能滿足市民的期望與要求。為了讓市民及業界持份者清楚認識到新法例的實施，一般法例部舉辦了一系列的宣傳活動，例如播放電視宣傳短片及電台宣傳廣播、印製海報、單張和指南，並為物業管理公司、市民大眾及業界從業員舉行超過40場研討會，向他們簡介「條例」規定的升降機和自動梯負責人及註冊人士的責任，以及如何安全使用升降機和自動梯，同時在上述部分研討會中提出優化升降機和自動梯的七項建議，有超過3,000名市民出席。在簡介會上，一般法例部派發了各類小冊子，內容涵蓋升降機優化工作、「條例」的實施，以及「條例」訂明的升降機和自動梯負責人的責任。

MECHANICAL SAFETY

Implementation of the Lifts and Escalators Ordinance (Chapter 618)

EMSD commenced work to amend the Lifts and Escalators (Safety) Ordinance in 2009, and after years of preparation and canvassing, numerous meetings and communication with the trades, the Lifts and Escalators Ordinance (LEO) (Cap. 618), and the two regulations under the ordinance, that is, the Lifts and Escalators (General) Regulation and the Lifts and Escalators (Fees) Regulation, came into force and repealed the Lifts and Escalators (Safety) Ordinance on 17 December 2012.



一般法例部印製一系列宣傳小冊子，向市民和業界推廣新法例的詳情。
General Legislation Division printed a series of promotional pamphlets to publicise the details of the new legislation to the public and trades.



負責人須在事故發生24小時內以書面通知機電署署長及有關的註冊升降機及自動梯的承辦商。
Responsible persons are required to notify the Director of Electrical and Mechanical Services and registered lift and escalator contractors in writing within 24 hours of any incident occurrence.

Under the LEO, responsibility of management of the lifts and escalators are shared among homeowners, owners' corporations and property management companies. The inclusion of the persons managing the lifts and escalators to be held responsible along with the owners serves to ensure the equipment is kept in safe working order and in proper state of repair and maintenance. Furthermore, the maximum fine for penalty was also increased to \$200,000 as a greater deterrent.

Additionally, the LEO also introduced a workers' registration system whereby workers are registered in accordance with their qualifications. In the first six months from the commencement of the operation of the ordinance, about half of the 5,000 workers have already registered under the new scheme and EMSD aims to complete the registration of all 5,000 workers in Hong Kong by the end of 2013.

The LEO enforces enhanced regulatory control on the maintenance and operations of lifts and escalators in order to enhance public safety and better satisfy the public's expectations and demands. In order for the public and industry stakeholders to be fully aware of the implementation of new legislature, the General Legislation Division organised a series of promotions such as television and radio announcements, posters, leaflets and guidebooks, as well as holding over 40 seminars for management companies, the general public and industry practitioners, briefing them on the duties of the responsible persons and registered personnel for lifts and escalators under the ordinance as well as the safe use of lifts and escalators. The seven proposals to modernise the existing lifts were also included in part of the above seminars. Over 3,000 members of the public attended. During the briefings, booklets covering lift modernisation, introduction of the ordinance, and the duties of the responsible persons as outlined by the ordinance were distributed.



自2007年至今，已有約10,000名技工透過「車輛維修技工自願註冊計劃」註冊。
About 10,000 vehicle mechanics have already registered under the Voluntary Registration Scheme for Vehicle Maintenance Mechanics since 2007.

車輛維修技工註冊計劃

全港約有653,010輛持牌車輛，即每公里路面便約有3,121輛持牌車輛使用，令香港成為全球最繁忙的城市之一。本港有9,420名車輛維修技工，全賴他們才可保障本港的道路安全，確保這些車輛可在路上安全行駛。有見及此，機電署設立車輛維修技工自願註冊計劃，讓具備所需資歷及經驗的車輛維修技工可獲得註冊，從而確立表現水平，甄別合資格的車輛維修技工，並透過《行為守則》更有效規管維修業界。雖然計劃只是自願性質，但在2013年，已有約7,400名車輛維修技工註冊，佔全港車輛維修技工人數78%左右，顯示業界十分支持這項計劃。一般法例部會繼續監察和積極改善這項計劃，並就是否需要立法徵詢業界意見進行正式研究。

車輛維修工場約章

車輛維修技工自願註冊計劃成功執行後，一般法例部於2012年推出車輛維修工場約章。約章亦屬自願性質，車輛維修工場如簽署上述約章，即表示承諾遵守一套《實務守則》，從而提高服務標準和工場的專業水平。約章雖然仍在起步階段，但已為進一步規管及加強監控車輛維修工場奠定基礎。



已簽署車輛維修工場約章的車輛維修工場於當眼處張貼約章內容，以表承諾提供優質服務。
The service pledge is prominently displayed in the workshops that have joined the Vehicle Maintenance Workshops Charter, indicating their commitment to providing quality service.

Registered Scheme for Vehicle Mechanics

There are about 653,010 motor vehicles licensed in Hong Kong, which means there are approximately 3,121 licensed vehicles for every kilometre of road, making Hong Kong one of the busiest cities in the world. Hong Kong's safety on the road is guarded by the 9,420 vehicle mechanics that ensure these vehicles are road worthy. In view of this, EMSD introduced a Voluntary Registration Scheme for Vehicle Mechanics to benchmark these mechanics. Mechanics in possession of necessary qualifications and experiences are eligible for registration, hence establishing a performance standard to identify competent vehicle mechanics. Meanwhile, the industry could also be better regulated under a Code of Conduct. Although the scheme is only operated on a voluntary basis, about 7,400 vehicle mechanics are already registered under the scheme in 2013, accounting for about 78% of the vehicle mechanics in Hong Kong, indicating the trade's acceptance of the scheme. The General Legislation Division will continue to monitor and pro-actively enhance the scheme, and conduct formal studies in consultation with the trade regarding the need for legislation.

Vehicle Maintenance Workshops Charter

Following the success of the Voluntary Registration Scheme for Vehicle Mechanics, the General Legislation Division launched the Vehicle Maintenance Workshops Charter in 2012. Operating also on a voluntary basis, vehicle maintenance workshops pledging the charter agree to abide by a set of practice guidelines, which will in turn serve to raise the workshop's service standard and professionalism. Still at its initial stage, the charter has laid a foundation for future regulation and enhanced control on vehicle maintenance workshops.



本港兩個主題公園在2012年年間均推出全新機動遊戲機。
Both theme parks in Hong Kong introduced new amusement rides in 2012.

新機動遊戲機

鑑於娛樂需求持續上升，本港兩個主題公園不斷引進新機動遊戲機，以應付需求。香港迪士尼樂園新機動遊戲機的設計審核及實地檢驗工作已適時完成，「灰熊山谷」新主題區的「灰熊山極速礦車」可依時啟用，而「迷離莊園」內「迷離大宅」的安裝工程亦隨即展開。此外，在2012年7月，海洋公園引進了「極地時速」過山車，標誌著該公園順利完成重建計劃。

氦氣球事故技術調查

海洋公園於2012年6月28日發生事故，一部載有七名乘客及一名操作員的氦氣球於距離降落平台約29米外的花園著陸。機電署經調查後發現，氣球在操作時因受熱和重複的機械運作影響，引致氣球物料的黏合力減弱而洩漏氦氣，導致今次事故。由於海洋公園計劃只以氦氣球作為短期裝置，事故發生後有關氦氣球經已全面停止服務。

昂坪360纜車暫停運作後重開

昂坪360纜車在2012年1月25日發生停頓事故後，纜車服務暫停約兩個月。機電署的調查發現，是次事故是由於纜車系統中4號牽引纜滑輪的軸承內環滾動面出現不規則損蝕，加上4號牽引纜滑輪膠邊的不均勻磨損，導致纜車的運作停頓。機電署密切監察牽引纜滑輪軸承更換工程的進度、年度檢驗，以及與纜車系統的運作與維修有關的改善措施的實施情況，包括加強監察牽引纜滑輪軸承，每月為潤滑油進行分析，以及改善緊急處理程序。

機電署在確定纜車系統已落實各項必需措施，足以避免再發生同類事故及加強系統的穩定性後，昂坪360纜車於2012年4月3日重開。

花絮 Side Story

業界對新條例的意見

2012年12月17日，《升降機及自動梯條例》（第618章）開始生效，為年代已久極需改善的舊條例作出修訂，以反映市場的轉變及社會人士的期望。職業訓練局薄扶林大樓卓越培訓發展中心是全港唯一設有相關機械設施的中心，可教授升降機與自動梯的裝置、維修及保養的工作。作為該中心的總教導員，黃啟漢先生從工程人員的獨特角度觀察到新條例帶來的影響。

黃先生表示：「機電署投入大量人力物力，推出這項新條例，在諮詢期間及草擬階段聯繫各持份者，並成立由各界社區領袖組成的專責小組和分組，以討論有關條例的細節，最終達成一條平衡各方利益，同時為市民提供最大安全保障的條例。」舉例來說，在過去，升降機和自動梯工程人員的技術資格大部分視乎其工作經驗而定。假如工程人員決定轉往另一公司，其技能資歷便不能轉移。黃先生解釋說：「新條例正確反映工程人員的技術資格，註冊是根據工程人員在當前工作環境中，真正表現的技能水平而批核的。新條例為工程人員帶來持續提高工作水平的文化，而我們亦把培訓課程改為學分制，相信此舉會吸引更多年輕人投身這個行業。」



卓越培訓發展中心（電機業）
總教導員黃啟漢先生
Mr Charles Wong, Chief Instructor
Pro-Act Training and Development Centre (Electrical)

New Amusement Rides

With the increasing entertainment need, the two local theme parks have been introducing new amusement rides to meet the demand. Design vetting and on-site examination of the new rides at Hong Kong Disneyland were completed in time for the opening of the roller coaster "Big Grizzly Mountain Runaway Mine Cars" in the new theme land, "Grizzly Gulch", as well as the commencement of the installation of the new ride "Mystic Manor" at "Mystic Point". Meanwhile, the new roller coaster, "Arctic Blast" was introduced at Ocean Park in July 2012, which signified the successful completion of the park's redevelopment project.



維修人員為昂坪360纜車牽引纜滑輪軸承定期添加潤滑油，確保運作暢順。
Staff regreasing the bull wheel bearings of the Ngong Ping 360 Ropeway periodically to maintain continuous smooth operations.

Technical Investigation of Helium Balloon Ride Incident

An incident occurred on 28 June 2012 at Ocean Park when the helium balloon ride carrying seven passengers and a pilot landed on a planter 29 metres away from the landing platform. After investigation, the EMSD's findings suggested that thermal and mechanical cyclic effects of the balloon during operation had reduced the adhesion of the balloon fabrics, and subsequently led to a helium gas leak that caused the incident. As Ocean Park intended the helium balloon ride as a transitional attraction, the service of the ride was terminated after the incident.

Ngong Ping 360 Reopened After Extended Suspension

The service of the Ngong Ping 360 Ropeway was suspended for about two months following a stoppage incident on 25 January 2012. Upon investigation by EMSD, the ropeway interruption was found to be caused by irregular spalling in the inner race of the bull wheel No.4 bearing and uneven wearing out of the linings of that bull wheel. EMSD closely monitored the progress of the bearing replacement work, the annual survey, and the implementation of the improvement measures related to the operation and maintenance of the ropeway system, including the enhancement of condition monitoring of the bull wheel bearings, monthly grease analysis and improvement of emergency handling procedures.

The Ngong Ping 360 Ropeway resumed operation on 3 April 2012, after EMSD confirmed its satisfaction that required implementation measures for preventing recurrence of similar incidents and enhancement of system reliability were in place.

Industry's Opinion on New Legislation

The Lifts and Escalators Ordinance (Cap. 618) came into force on 17 December 2012 providing the much needed amendments to an aging ordinance and to reflect market changes and social expectations. As the Chief Instructor of Pro-Act Training and Development Centre at VTC Pokfulam Complex, the only institute equipped to teach the installation, repair and maintenance of lifts and escalators in Hong Kong, Mr Charles Wong is in the unique position to observe the impact of the new legislature from the workers' viewpoints.

"EMSD has put in a lot of effort to roll out this new legislature, liaising among various stakeholders during the consultation and drafting stages and setting up task forces and sub-groups made up of community leaders from all walks of life to discuss the details of the ordinance," commented Mr Wong. "The result is an ordinance that strikes a balance between the interests of all parties, while providing maximum safety protection for the public." For instance, in the past, the recognition of competency of lift and escalator workers were largely based on their working experience, and competency qualifications were not transferrable should the workers decide to work for another company. "The new ordinance rightly reflects workers' technical qualifications, with the registration based on their technical skills which truly reflects the current job situation," Mr Wong explained. "The new ordinance introduces a culture of continuous improvement to our workers, and we have also changed our training courses to be credit-based, which we believe will attract more young people to pursue this career path."



鐵路科人員時常通宵檢驗港鐵列車，以確保市民旅途安全。
Railways Branch staff often work overnight to inspect MTR trains to ensure passengers have a safe journey.

鐵路安全

改善事故趨勢

鐵路科的鐵路規管理念是安全至上。若發生鐵路事故，香港鐵路有限公司（「港鐵公司」）必須通知鐵路科進行所需調查，查找出事原因，確保該公司採取適當的補救和預防措施。

鐵路科不斷監察港鐵公司的事故趨勢和模式，以預先找出任何新的趨勢或重複發生的錯誤。在監察過程中，鐵路科會定期聯絡港鐵公司檢討事故數字，確保及時採取適當的管制措施。

在實行適當措施後，鐵路科很高興看到，2012年內因設備故障及員工行為引起的事故，每月平均數字較2011年已大幅下降27%。然而，鐵路科會繼續留意事故趨勢，在發現新趨勢後立即與港鐵公司聯繫，以採取必需改善措施。

審批載客新C-列車

為應付日益增加的客運服務需求，港鐵公司訂購了14列列車以強化觀塘綫、荃灣綫、港島綫和將軍澳綫幾條市區路線的現有車隊，以及八列列車於觀塘綫延綫及西港島綫啟用時投入服務。2012年，已付運的列車合共13列。鐵路科監察新列車的各項安全及表現測試，確保列車安全良好才投入服務。新引入的C-列車首先在觀塘綫行走，騰出的現有列車則已調配服務其他市區路線。由於引入新車強化車隊，加上在服務方面的其他改善，港鐵列車服務在2012年得以增加62,000班次。較頻密的列車班次有助舒緩車站的擠逼情況及縮短乘客的候車時間。

2012年，鐵路科亦核證了行走荃灣綫、港島綫和將軍澳綫的C-列車綜合測試。這些列車加強了鐵路網絡列車服務的靈活性，為乘客提供更方便快捷的服務。

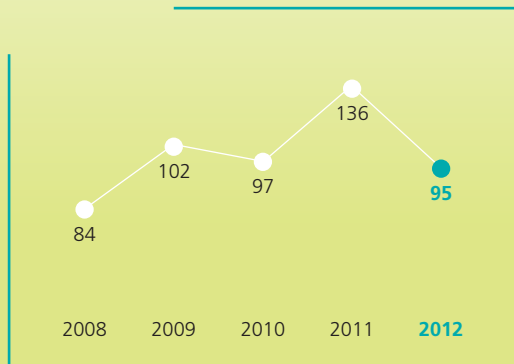


鐵路科人員為港鐵C-列車測試逃生門。
Railways Branch staff testing the detrainment doors of the MTR C-Trains.

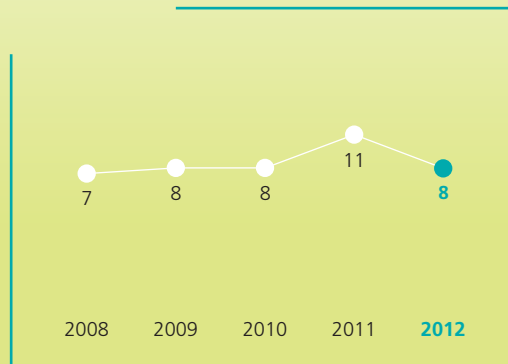


鐵路科人員正在檢驗C-列車車廂之間的通道。
Staff from the Railways Branch inspecting the gangway between compartments of the C-Trains.

因設備故障及員工行為引起的鐵路事故數目 Annual Railway Incidents Caused by Equipment Failure and Staff Behaviour



年度鐵路事故
Annual Railway Incidents



平均每月事故
Average Monthly Incidents

RAILWAY SAFETY

Improving Incident Trend

The Railways Branch puts safety as its top priority for railway regulation. When a railway incident occurs, MTR Corporation Limited (MTRCL) is required to notify the Branch for necessary investigation to find out the cause, ensuring the adoption of appropriate remedial and preventive measures by MTRCL.

The Branch continuously monitors MTRCL's incident trends and patterns in order to identify any developing trends or repeated errors in advance. Throughout the process, the Branch remains in regular contact with MTRCL to review their incident figures and to ensure that appropriate control measures are implemented in a timely manner.

With the measures in place, the Branch was happy to see a considerable fall in the monthly average number of incidents caused by equipment failure and staff behaviour, decreasing by 27% in 2012 compared with the figures in 2011. Nevertheless, the Railways Branch will continue to keep track of the incident trend and liaise with MTRCL for necessary improvements once identified from incidents.

Approval of C-Train to Passenger Service

With the aim of meeting the growing need for train service, MTRCL purchased 14 trains to strengthen its existing fleet in urban lines, namely Kwun Tong Line, Tsuen Wan Line, Island Line and Tseung Kwan O Line; and another eight trains to tie in with the opening dates of the Kwun Tong Line Extension and West Island Line. Thirteen of these trains were delivered in 2012. The Railways Branch was responsible for monitoring various



C-列車逃生門設於列車頭尾兩端。
Detrainment door is located at the front and rear of the C-Trains.

safety and performance tests of the new trains before they were confirmed safe and sound and released for operation. The new C-Trains were first introduced to the Kwun Tong Line, thus releasing the existing trains to run on other urban lines. The strengthened fleet, together with other service enhancements added about 62,000 additional train trips in 2012. The more frequent train service helped ease crowding conditions at the railway stations and reduce waiting time for passengers.

In 2012, the Branch also certified the integration tests for C-Trains to run on the Tsuen Wan, Island and Tseung Kwan O Lines, which provided added flexibility for train movement in the railway network and benefited passengers with more effective and efficient services.



廣深港高速鐵路（香港段）的隧道工程。
Tunnel Construction of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (Hong Kong Section).

未來的挑戰

2015年，在西港島綫、觀塘綫延綫、南港島綫（東段）和廣深港高速鐵路（香港段）四條主要鐵路綫竣工後，鐵路網絡的大規模擴建工程便告完成。為日後啟用的西港島綫而進行的上環站改善工程已於2012年完成，而沙田至中環綫的建造工程亦已於同年年底展開。鐵路科正忙於檢核和審批上述五項鐵路工程的新列車路線，以及現有路線的改善工程。儘管資源緊絀，鐵路科會繼續密切監察港鐵公司所有新鐵路項目，確保鐵路安全運作。

花絮 Side Story



機電署（鐵路科）
高級工程師周欽偉先生
Mr Steven Chow, Senior Engineer
EMSD (Railways Branch)

C-列車檢查

鐵路科負責香港鐵路安全的規管工作。在批准C-列車載客前，鐵路科須確保列車能通過一系列的安全及表現測試。

高級工程師（鐵路科）周欽偉先生解釋：「我們的首要考慮是乘客安全，因此必須肯定新列車安全良好，才可讓列車投入服務。」

為測試C-列車在不同情況的安全表現，必須於路軌測試列車，而測試須於夜間進行，以免影響正常的列車服務。周先生笑說：「我們已習慣了當夜班！再者，C-列車檢查須在非常緊迫的時間內完成，但可通宵開放給我們測試列車的路軌數目卻很有限。」

儘管有這些局限，而工作時間亦不固定，鐵路科一直對安全標準保持最高要求。鐵路科選擇檢查列車緊急逃生門的地點，是樂富與黃大仙之間的路軌；該處是路軌最斜，弧度最彎的一段。測試結果顯示，緊急逃生門經多番反覆測試後零件損壞，無法順暢地打開。周先生強調：「緊急逃生門是乘客的緊急出口，我們要確保設備絕對安全。」鐵路科堅持港鐵公司須重新設計及改良有關零件，才批准C-列車投入載客服務。

C-Train Inspection

The Railways Branch is responsible for regulating railway safety in Hong Kong. Prior to the permission of C-Trains to be put into service, the Branch had to ensure that the trains successfully passed a series of safety and performance tests.

"Passenger safety is foremost on our minds, and we have to make sure the new trains are safe and sound before they are allowed to operate," explained Mr Steven Chow, Senior Engineer, Railways.

In order to check the C-Trains' safety performance under various conditions, the trains were tested on the rail tracks, and these tests had to be carried out at night so as not to affect the operation of normal train services. "We are used to working night shifts!" smiled Mr Chow. "Moreover, the C-Train inspections had to be completed in a very narrow time-frame – we only had a limited number of overnight tracks to perform the tests."

Despite this challenge and irregular working hours, the Branch has always maintained the highest safety standards. For the inspection of the detrainment doors' operations, the Branch chose a location between Lok Fu and Wong Tai Sin where the railway track had a steep gradient and maximum cant. Test results revealed that the doors did not open smoothly due to wearing out of parts from repeated tests. "The detrainment door is the passengers' emergency exit, and safety is what we would never compromise on," Mr Chow insisted. The Branch insisted MTRCL to redesign and correct the parts before approval was finally granted for the C-Trains to commence passenger service.



 鐵路科與港鐵公司保持密切聯繫，並監察其管制措施保障市民安全。
 Railways Branch maintains close communication with MTRCL and monitor their control measures to ensure maximum public safety.

Future Challenges

The public will see the massive expansion of the railway network in 2015 with the completion of four major railway lines: West Island Line, Kwun Tong Line Extension, South Island Line (East) and Guangzhou-Shenzhen-Hong Kong Express Rail Link (Hong Kong Section). Modification works of the Sheung Wan Station in preparation for the upcoming opening of the West Island Line were completed in 2012, while the Shatin to Central Link

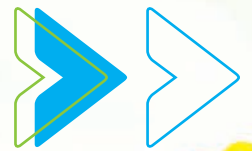
began construction works in late 2012. The Branch is facing the challenge of vetting and approving the new railway lines for all five new railways projects, as well as the modification works of the operating railway lines concurrently. Although resources are tightly engaged, the Branch will closely monitor MTRCL's new railway projects to ensure that railway safety is not compromised.



 輕鐵道路安全運動2012提醒市民注意輕鐵道路安全。
 Light Rail Road Safety Campaign 2012 enhances public awareness on road safety on light rail roads.



推廣能源效益及節能



Promoting Energy Efficiency and Conservation







能源效益事務處人員巡查區域供冷系統供冷機房的工程。
Energy Efficiency Office staff inspecting the construction of the chiller plant room of the District Cooling System.

《建築物能源效益條例》的實施

對能源效益事務處來說，2012年是非常重要的一年，因為《建築物能源效益條例》（下稱「條例」）（第610章）在2012年9月21日全面實施。「條例」規定新建建築物及進行「主要裝修工程」的現有建築物內的屋宇裝備裝置，即空調、照明、電力、升降機及自動梯等，均須符合《建築物能源效益守則》所規定的設計標準。此外，現有商業建築物及綜合用途建築物亦須根據《能源審核守則》的規定每十年進行一次能源審核。實施「條例」對減少溫室氣體排放有相當大的貢獻，並且是本署不斷為香港努力提供較佳居住環境的重要里程碑。

註冊能源效益評核人

能源效益事務處亦同時推展「註冊能源效益評核人」的註冊工作，以助實施「條例」。評核人的責任包括協助發展商、業主或負責人遵從「條例」的規定。截至目前為止，在850份註冊申請中，約750份已獲批准。

建築物能源效益自願註冊計劃

雖然「條例」現已生效，但是新條例只適用於2012年9月21日後落成的新建築物，又或在此之後進行主要裝修工程的現有建築物。因此，能源效益事務處在1998年10月推出的「香港建築物能源效益註冊計劃」依然有效，以鼓勵其他現有建築物提高能源效益，減少溫室氣體排放。迄今已有超過1,500座建築物根據是項自願計劃註冊。



機電署（能源效益事務處）高級工程師楊楚基先生於「圓桌對談：綠色建築及可持續技術」活動中，向業界領袖講解《建築物能源效益條例》。

Mr Ken Yeung, Senior Engineer, EMSD (Energy Efficiency Office) gave a briefing on the BEEO to industry leaders at the "Roundtable Dialogue: Green Buildings & Sustainable Technologies" event.



▶ 新建樓宇必須符合新建築物能源效益守則之設計標準。
Newly constructed buildings must meet the new Building Energy Code design standards.

Implementation of Buildings Energy Efficiency Ordinance

The year 2012 was very important for the Energy Efficiency Office as the Buildings Energy Efficiency Ordinance (BEEO) (Cap. 610) came into full operation on 21 September 2012. Under the new ordinance, building services installations such as air-conditioning, lighting, electrical installations, as well as lifts and escalators in newly constructed buildings or “major retrofitting works” on existing buildings must comply with the design standards of the Building Energy Code (BEC). Furthermore, existing commercial buildings and composite buildings are also required to carry out energy audits in accordance with the Energy Audit Code (EAC) every 10 years. The introduction of the BEEO will make a considerable contribution towards the reduction of greenhouse gas emission and marks an important milestone in the department’s continuous effort in promoting a better living environment for Hong Kong.

Registered Energy Assessor

In order to facilitate the implementation of the BEEO, the Office also proceeded with the registration of Registered Energy Assessors whose duties include assisting developers, owners or responsible persons to comply with the requirements of the BEEO. To date, the Office has already approved about 750 of the 850 applications for registration.

Voluntary Energy Efficiency Registration Scheme for Buildings

Despite the BEEO coming into effect, the new ordinance will only apply to new or existing buildings undergoing major retrofitting after 21 September 2012. In order to encourage other existing buildings to enhance their energy efficiency and reduce greenhouse gas emissions, the Hong Kong Energy Efficiency Registration Scheme for Buildings that the Office launched in October 1998 would remain in effect. So far, over 1,500 buildings have registered under this voluntary scheme.



自願性能源效益標籤計劃從2012年7月開始涵蓋電磁爐。
From July 2012, induction cookers were also included in the Voluntary Energy Efficiency Labelling Scheme.



節能小貼士的展板有助推動高能源效益的生活方式。
Exhibition panels with Energy Saving Tips help promote a more energy efficient lifestyle.

強性能源效益標籤計劃

2011年9月19日，強性能源效益標籤計劃第二階段開始生效，計劃範圍擴大至包括洗衣機和抽濕機。計劃下涵蓋的五種產品，即空調機、冷凍器具、緊湊型熒光燈（慳電膽），洗衣機和抽濕機均須貼上能源標籤，為消費者提供產品的能源效益資料。能源效益事務處舉辦多個強性能源效益標籤計劃業界研討會，宣傳有關法例的規定、進口商和供應商的責任，以及如何申請及展示能源標籤，以教育業界及供應商有關計劃的知識。

自願性能源效益標籤計劃

在成功實施強性能源效益標籤計劃的同時，能源效益事務處亦為小型電氣產品推行自願性能源效益標籤計劃，向市民推廣節能。除了上述計劃已涵蓋的20種家用產品和辦公室儀器外，日益受歡迎的電磁爐亦在2012年7月24日納入計劃。能源效益事務處希望透過是項計劃，推動市民更認真地考慮能源耗用量，促使生產商及供應商逐步取締較不節能的型號。

Mandatory Energy Efficiency Labelling Scheme

The second phase of the Mandatory Energy Efficiency Labelling Scheme (MEELS), which extended the scope of the scheme to washing machines and dehumidifiers, came into effect on 19 September 2011. The five products covered under the scheme, namely room air-conditioners, refrigerating appliances, compact fluorescent lamps (CFLs), washing machines and dehumidifiers are required to bear energy labels that provide consumers with the products' energy efficiency information. In order to educate the trades and suppliers on the scheme, the Office organised a number of Trade Seminars on MEELS, disseminating information regarding the statutory requirements, the obligation of importers and suppliers, and how to apply for and display the energy labels.

Voluntary Energy Efficiency Labelling Scheme

Along with the successfully implemented MEELS, the Office also operated a Voluntary Energy Efficiency Labelling Scheme (VEELS) for small electrical appliances to promote energy saving to the public. In addition to the 20 types of home appliances and office equipment already covered under VEELS, the increasingly popular home appliance, the induction cooker was also included in the scheme on 24 July 2012. Through VEELS, the Office hopes to cultivate a more conscientious public culture in terms of energy consumption which will in turn induce manufacturers and suppliers to phase out the less energy efficient models.



能源效益事務處人員於商店檢查電器是否符合能源標籤法。
Energy Efficiency Officers carrying out shop inspections to check on energy labelling on electrical appliances.



區域供冷系統在啟德重建發展項目中佔一重要席位。
The District Cooling System forms an integral part of the Kai Tak Redevelopment Project.



啟德郵輪碼頭接駁了香港首個區域供冷系統。
The Kai Tak Cruise Terminal is connected to Hong Kong's first District Cooling System.

區域供冷系統

能源效益事務處參與啟德發展區區域供冷系統第一期和第二期的施工，作為政府發展前啟德機場用地的主要基建項目的一部分。這是本港首次裝設此類設施，能源效益事務處既要克服新技術發展所帶來的挑戰，也須適時進行地下水管敷設工程，以及完成接駁供冷機房和海水泵房，以配合啟德郵輪碼頭於2013年6月啟用。

能源效益事務處其後也會為定於2013年第三季啟用的啟德發展區公共屋邨商場及日後的醫院和辦公室大樓，裝設區域供冷系統。

淡水冷卻塔計劃

能源效益事務處過去曾引進多項計劃，鼓勵建築物改用更具能源效益的裝置，其中一項計劃便是空調系統使用淡水冷卻塔計劃。機電署率先提出上述計劃，鼓勵非住宅建築物為其空調系統更廣泛使用淡水冷卻塔式的水冷式系統，以取代氣冷式系統。採用淡水冷卻塔的水冷式系統，估計較傳統氣冷式系統可節省達20%左右的能耗，不但為建築物節省金錢開支，同時又更環保。截至2012年12月，能源效益事務處收到733個加入是項計劃的申請，當中有426個申請的裝置（包括1,452座冷卻塔）已在全港各區完成安裝。能源效益事務處會透過擁有人遞交的每月操作記錄和年度審核報告，繼續監察該等裝置的運作和水質情況。

District Cooling System

As part of the government's major infrastructure project to develop the former Kai Tak Airport area, the Office was involved in the construction of the Phase I and II of the District Cooling System (DCS) at the Kai Tak Development. The first installation of its kind in Hong Kong, the Office was faced with the challenge of overcoming new technology development, while at the same time, laying the underground pipe-works and completing the connected chiller plant rooms and seawater pump room in time for the grand opening of the Kai Tak Cruise Terminal in June 2013.

Subsequently, the Office will also be installing the DCS in retail areas of the public estates in the Kai Tak Development due to open in the third quarter of 2013, as well as the future hospital and office buildings.

Fresh Water Cooling Towers Scheme

In the past, the Office has introduced various schemes to encourage buildings to convert to more energy efficient installations, and one of these schemes was the Fresh Water Cooling Towers Scheme for Air Conditioning Systems (the "Scheme"). Spearheaded by EMSD, the Scheme encouraged the wider use of water-cooled types using fresh water cooling towers by non-domestic buildings instead of the air-cooled types for their air-conditioning systems. Water-cooled systems using the fresh water cooling towers is estimated to be up to 20% more energy efficient than the traditional air-cooled systems, thus reaping financial savings for the buildings while being more environmentally friendly. As at December 2012, the Office has received 733 applications for joining the Scheme, among which 426 installations (comprising 1,452 cooling towers) have been completed throughout the city. The Office will continue to monitor the operational conditions and water quality of the completed installations through owners' submissions of monthly operational records and annual audit reports.



能源效益事務處抽查及公布淡水冷卻塔水質報告。

Energy Efficiency Office carries out random checks and releases test results on water sampling on fresh water cooling towers.



「全民節能」

2012年6月7日，能源效益事務處聯同環境局和可持續發展委員會舉辦「全民節能」宣傳活動，推動全民節能。在啟動儀式上隆重宣布推出「節能約章」，並獲得19家發展商及物業管理公司支持，承諾於2012年6月至9月期間，把他們旗下103間商場的平均室內溫度維持在攝氏24至26度之間。據研究顯示，建築物用電約佔全港耗電量的90%，而當中大部分為商業處所的空調用電。這103間商場的支持是減省全港能源耗用量最有效的方法，期望其他商場及商業處所會效法並參與「節能約章」。

500個新設電動車充電設施

能源效益事務處向來支持政府推廣提倡使用電動車。2012年5月24日，財政司司長曾俊華先生在天星碼頭政府停車場為電動車充電設施啟用儀式主禮，並宣布會在全港18個政府停車場設置500個標準充電點，供市民使用，以持續推動市民更廣泛採用電動車。到2012年年底，連同私人停車場內裝設的充電設施，全港充電點總數會達至1,000個。再者，全港的快速充電器亦由五個增至十個。擴大的充電網絡會帶來更多方便，增強本港市民使用電動車的信心。

新技術提高效益成果

能源效益事務處運用其專業知識研發流動程式，供在店舖巡查電氣產品時使用，以便更有效率和更有成效地為市民提供最佳服務。過去，巡查人員在進行每日巡查前，需把最新數據下載到電子手帳內，在返回辦事處後又要將巡查結果上載。有了新流動程式，便可實時在線上取得數據，而巡查人員亦可隨時隨地檢索準確的資料。巡查時所收集得的資料可即時輸入並上載，大大減少文書工作和發生人為錯誤的機會，因而加強巡查的質量控制和準確度。



▶ 財政司司長曾俊華先生（右三）主持電動車充電站的啟動儀式。
Mr John Tsang, Financial Secretary (3rd from right), officiating at the launching ceremony of the Electric Vehicles Charging Stations.



▶ 應用程式的運用大大提高了店舖巡查的效率和準確度。
The use of mobile applications increases the efficiency and accuracy of shop inspections.



▶ 1,000個電動車充電點，遍布香港各停車場，以推廣電動車普及化。
 1,000 Electric Vehicle Charging Stations were installed in car parks throughout Hong Kong to promote the use of EVs.

Community-wide Participation in Energy Saving

On 7 June 2012, the Office joined with the Environment Bureau and the Council of Sustainable Development and organised the Publicity Event on Community-wide Participation in Energy Saving to promote community-wide energy saving. During the launching ceremony, the Office announced the launch of the Energy Saving Charter, and the endorsement of the charter by 19 developers and property management companies in pledging to maintain an average indoor temperature of between 24 and 26 degrees Celsius during the months June to September 2012 at 103 shopping malls. According to studies, around 90% of the electricity is consumed in buildings in Hong Kong, with air-conditioning in commercial premises accounting for a large proportion of energy consumed. Garnering the support of these 103 shopping malls is the most effective means to reduce energy consumption in the city, and hopefully, other shopping centres and commercial premises will follow their example and join the charter.

500 New Charging Stations for Electric Vehicles

The Office has been supporting the government's initiative in promoting the use of electric vehicles (EVs). As part of the continuous effort to drive wider adoption of EVs, the Financial Secretary, Mr John Tsang, officiated at a ceremony for EV charging points on 24 May 2012 at the Star Ferry Car Park and

announced the launching of 500 standard charging points at 18 government car parks for public use throughout the city. Together with charging facilities installed by owners of private car parks, the EV charging infrastructure would reach 1,000 charging points by the end of 2012 in Hong Kong. Furthermore, the number of quick chargers around the territories would also be increased from five to ten. The added convenience provided by the expanded network would increase public confidence in using electric vehicles in Hong Kong.

Adopting New Technology Increased Efficiency and Effectiveness

In its mission to provide the best service for the public more efficiently and effectively, the Office utilised its expertise and developed a mobile application for shop inspections on electrical appliances. In the past, inspectors had to download the most up-to-date database to their PDAs prior to their inspections every day, and then had to upload the results of their inspections after they returned to the office. With the new mobile application, data is available online in real time, and accurate information is always readily available to the inspectors. The information gathered during inspections can be entered and uploaded immediately, minimising paperwork and possible human errors, thereby enhancing the quality control and accuracy of the inspections.



▶ 能源效益事務處同事郭穎妍對推動綠色教育不遺餘力，獲頒「年青綠色領袖獎」。Our colleague, Ms Wendy Kwok from the Energy Efficiency Office, won the “Young Green Leader Award” for her efforts in promoting green education.

「能源數據培訓交流工作坊」

機電署明白持續發展十分重要，並一向積極支持員工參與研討會、會議或交流會，以取得最新的市場資訊。為此，能源效益事務處於2012年10月15及16日，為新入職員工及其他政府部門舉辦「能源數據培訓交流工作坊」。工作坊為期兩天，其間除了由能源效益事務處工程人員提供最新的能源數據，以及其他部門人員分享他們在有關範疇的經驗外，亦邀請了海外和本地能源數據專家就特定課題發表演說，顯示能源效益事務處對節能的專業和積極態度。希望藉著這個工作坊可讓其他部門更清楚明白能源數據的重要性，日後可從這些部門收集更準確和可靠的資料，協助政府制訂往後的能源政策，為市民的利益謀福祉。

獎項

2012年，屋宇裝備工程師郭穎妍女士獲香港工程師學會頒發「年青綠色領袖獎」，以表揚她在推動綠色教育所作出的努力。除了在《建築物能源效益條例》草擬初期提供協助外，郭女士還就審核註冊能源效益評核人的申請，以及與綠色團體合力促進建築物能源效益上作出寶貴的貢獻。

▶ 花絮 Side Story



香港女童軍總會（東區分會）副主席李榮貴工程師
Ir Spencer Li, Divisional Vice Chairman
Hong Kong Girl Guides Association (Island East Division)

介紹綠色建築物特色的教育徑

作為香港主要的機電工程服務機構，機電署總部大樓展示了機電與屋宇裝備的最新發展。為此，機電署特別設計了一條教育徑，介紹這些尖端綠色設施和可持續發展設計。

2013年5月18日，香港女童軍總會（東區分會）副主席李榮貴工程師與20位女童軍領袖參觀教育徑。李工程師解釋說：「我們的女童軍領袖對綠色概念感到興趣，其中一位領袖建議我們到機電署總部大樓參觀，看看該建築物的特色。」機電署迅速作出安排是次參觀在一個月內進行。

兩名職員在現場帶領女童軍領袖遊覽教育徑。教育徑包括七樓機電安全展覽區的四件展品，用作介紹機電署在電氣安全、機動遊戲機安全、氣體安全以及升降機和自動梯安全方面的工作；天台觀景台的光伏板系統、地下能源效益展覽館的19組互動式遊戲和展品，以及垂直綠化裝置、聚光伏板及總部大樓外行車道的其他能源效益設施。李工程師憶述：「各人都對這次參觀機電署的活動讚不絕口。展覽設計別出心裁，內容深入淺出，互動遊戲和展品都極為有趣，大人小孩都樂在其中。」

李工程師讚揚機電署積極推廣綠色建築。「是次參觀後，我們認識到有關節能方面的新知識，並對機電署所負責的工作範圍與規模之廣留下深刻印象。」

「我們女童軍認為教育徑之旅精彩有趣，一定會推薦給其他團體和部門前往參觀。」



社區團體及組織參觀機電署總部大樓，加深對本署工作範疇的了解。

Local communities and organisations visited the EMSD Headquarters, to have a better understanding of the department's scope of work.

“Energy Statistics Capacity Building Workshop”

EMSD recognises the importance of continuous development and has always been most supportive of its staff in attending seminars, conferences or exchanges for the most up-to-date market information. In this respect, the Office has organised

an Energy Statistics Capacity Building Workshop for new staff and other government departments on 15 and 16 October 2012. During the two-day workshop, in addition to engineers from Energy Efficiency Office disseminating up-to-date information on energy statistics and officials from other departments sharing their experience in the field, overseas and local energy data experts were also invited to speak on selected topics, showing the Office's professional and proactive attitude towards energy conservation. The Office hopes that through better understanding the importance of energy data, more accurate and reliable information will be collected from other departments in the future, thereby facilitating the government's work in devising future energy policies for the public's benefit.

Awards

Ms Wendy Kwok Wing-yin, Building Services Engineer, was awarded the “Young Green Leader Award” by the Hong Kong Institution of Engineers in 2012 as recognition of her work in promoting green education. In addition to her input during the early stages of the drafting of the BEEO, Ms Kwok also contributed to the vetting of REA applications and the promotion of building energy efficiency with green organisations.

Education Path Showcases Green Building Features

As EMSD is a prime provider of electrical and mechanical engineering service in Hong Kong, its headquarters displays the latest development in electrical, mechanical and building services. To this effect, the department has established a dedicated Education Path to showcase these cutting-edge green features and sustainable development designs.

On 18 May 2013, Ir Spencer Li, Divisional Vice Chairman of Hong Kong Girl Guides Association (Island East Division) and 20 Girl Guide Leaders visited the Education Path. “Our Girl Guide Leaders were interested in green concepts, and one of our leaders suggested we visit the EMSD Headquarters and take a tour of their building features,” explained Ir Li. The tour arrangements were made efficiently and the visit was conducted within a month.

Two staff members were on hand to take the group of Girl Guide Leaders for a tour of the Education Path, which consists of four exhibits in the Electrical and Mechanical Safety Exhibition Area on the 7th floor including EMSD's work in electrical, amusement rides, gas, and lifts and escalators safety; the photovoltaic panel system on the rooftop viewing gallery; the 19 interactive games and exhibits in the Exhibition Gallery on Energy Efficiency on the Ground Floor; and the Vertical Greening installation, Concentrated Photovoltaic Panel (CPV) and other energy efficient facilities on the outdoor building driveway. “Everyone enjoyed the EMSD visit,” recalled Ir Li. “The exhibitions were well laid out and easy to understand, and everyone, from adults to children, had great fun with the interactive games and displays.”

Ir Li commended EMSD for its initiative in promoting green buildings. “After the tour, we gained new knowledge about energy conservation issues, and were amazed by the scale and scope of the work which EMSD is responsible for.”

“The Education Path tour is a great activity for our Girl Guides, and we would definitely recommend other organisations and departments to visit too.”





提高公眾安全及 
節能意識

**Raising Public Awareness of
Safety and Energy Conservation**





機電安全嘉年華是機電署的重要年度宣傳活動之一。
The E&M Safety Carnival is one of EMSD's main publicity events.

多年以來，機電署一直通過規管服務、執法行動、試驗計劃，以及與其他政府部門通力合作，致力為市民提供更安全、更完善的居住環境。然而，假如沒有市民的支持，我們的一切努力都只會是白費。因此，本署向來深信，在工作上必須公開透明，盡量向所有持份者及傳媒提供清晰明白的資料。本署亦致力讓市民參與各類公眾教育計劃，以便提高市民大眾的安全及節能意識，從而促進本署的運作及宣傳。

「機電安全香港通」

鑑於市民對安全及正確做法的意識十分重要，本署繼續在2012年舉辦每兩年一度的「機電安全香港通」，包括一系列的活動，例如學校話劇、繪畫創作比賽、年曆卡設計比賽、短片攝製比賽、歌曲填詞比賽，以及網上問答比賽。當中的重點活動是於2012年11月17及18日在葵涌運動場舉行的「機電安全嘉年華」，吸引約12,000人入場。嘉年華設有富教育意義的攤位遊戲、展覽、即場問答遊戲、歌星表演、話劇及兒童天地，入場人士全都盡興而回。



發展局局長陳茂波先生與一眾嘉賓於2012年12月16日在九龍灣零碳天地主持「升降機及自動梯條例啟動典禮」。
The Secretary for Development, Mr Paul Chan and the honored guests officiated at the Lifts and Escalators Ordinance Launching Ceremony at Zero Carbon Building in Kowloon Bay on 16 December 2012.



▶ 嘉年華會攤位遊戲以輕鬆好玩的形式宣傳家居安全。
Game booths promote home safety in a relaxed and fun way.



▶ 透過流動展品來增加市民對新法例的認知。
Raising public awareness on newly introduced legislations by means of roving exhibits.



▶ 中電及香港工程師學會代表蒞臨機電署總部參觀及參加節能座談會。
Representatives from CLP Power Hong Kong Limited & The Hong Kong Institution of Engineers attending an Energy Efficiency Seminar at the EMSD Headquarters.

Throughout the years, EMSD has strived to provide a safer and better living environment for the public through regulatory services, law enforcement, pilot schemes and cooperation with other departments. However, all our effort would be pointless without the public's support. Hence, the department has always believed in the importance of corporate transparency and tries to be upfront with all stakeholders and the media. The department also tries to engage the public in a variety of public education programmes in order to raise awareness in the general public which in turn facilitates the operation and promotion of our work.

The E&M Safety Campaign

Recognising the important role that public awareness plays in safety and good practices, the department continued to organise the biennial Electrical and Mechanical Safety Campaign in 2012 that featured a series of activities such as school drama performances, drawing competitions, calendar card design competitions, short video competitions, lyrics compositions and an on-line quiz. The highlight of the campaign was the Electrical and Mechanical Safety Carnival. The event was held in Kwai Chung Sports Ground on 17 and 18 November 2012, attracting about 12,000 visitors who enjoyed a fun-filled day with the educational game booths, exhibitions, on-site quiz, pop singers' performances, drama performances and children's fun corner provided by the participating organisations.



「升降機及自動梯條例啟動典禮」

本署亦會透過大型推廣活動，令市民認識新實施的條例。例如，於2012年12月16日在零炭天地舉行的「升降機及自動梯條例啟動典禮」。是次典禮是向市民介紹新條例並展開有關宣傳活動，當天吸引了約2,000人入場，場內設有教育展覽和遊戲攤位，並安排了歌星表演和話劇。入場人士度過了有趣而愉快的一天。

一般法例部同時展開了一系列的宣傳活動，包括播放電視宣傳短片及電台宣傳廣播、舉辦講座，以及印製指南、海報和單張，讓公眾和業界更清楚他們在新條例實施後的職責和責任。此外，一般法例部又多次安排青年大使進行探訪，到訪了約100幢沒有業主立案法團、業主委員會或物業管理公司的建築物，向居民和升降機擁有人宣傳有關條例的資訊和管理升降機須知。

能源效益標籤計劃

強制性標籤計劃首階段及第二階段分別於2009年11月9日及2011年9月19日全面實施後，能源效益事務處隨即繼續透過各類刊物、業界研討會、專設網站、電視宣傳短片及電台廣播等進行宣傳，致力教育市民和業界有關能源標籤事宜。



機電署備有多個有關能源效益標籤計劃的流動展板可供本地學校及團體借用。
Various roving displays on the Energy Efficiency Labelling Scheme are available for loan to local schools and organisations.



機電署經常更新部門網頁，向公眾提供最新資訊。
The department's websites are regularly updated to provide the latest and most up-to-date information to the public.



機電署邁進社區，也會參加由其他組織和團體舉辦的社區活動。
 In order to reach out to the public, EMSD also participate in community events organised by local associations and organisations.

Lifts and Escalators Ordinance Launching Ceremony

Large scale marketing campaigns also raise public awareness of newly introduced ordinances. For instance, the new Lifts and Escalators Ordinance and its associated marketing campaign were kicked off by a launching ceremony on 16 December 2012 at the Zero Carbon Building which attracted around 2,000 visitors. The visitors enjoyed a day of fun and entertainment including educational exhibitions, game booths, as well as pop-singers and drama performances.

The General Legislation Division launched a series of promotions simultaneously to enhance public and trade knowledge of their duties and responsibilities under the new ordinance, which included television and radio public announcements,

seminars, guidebooks, posters and leaflets. The Division also organised a series of ambassador visits to approximately 100 buildings without Owners' Corporations, Owners' Committees or property management agents, disseminating information relating to the ordinance and offering tips on how to manage their lifts to residents and lift owners.

Energy Efficiency Labelling Scheme

Following the full implementation of the initial and second phases of MEELS on 9 November 2009 and 19 September 2011, the Energy Efficiency Office continued to put in a lot of effort into educating the public and the trades about the Energy Label through various publications, trade seminars, dedicated website and television and radio public announcements.



機電署總部七樓展覽廳的互動展品大受小學生歡迎。

The interactive displays on the 7th floor Exhibition Gallery are most popular with primary students.

提高公眾安全及節能意識的互動網站

2012年8月6日，能源效益事務處推出新的「能源標籤網」www.energylabel.emsd.gov.hk，專門提供能源標籤及節能產品的資訊，鼓勵市民選用更具能源效益的產品，並且提高公眾節能的意識。網站載列各種有關強制性標籤計劃的資訊，計劃涵蓋的產品清單，以及從計劃刪除的產品清單。此外，網站亦有各類刊物、小冊子及快訊可供下載，方便市民快速的查找相關資料。

與業界及零售商直接聯繫

若署方要成功推行強制性標籤計劃，與業界通力合作是成功關鍵。在2012年，能源效益事務處一方面宣傳強制性標籤計劃第二階段，另一方面亦致力參與推廣《建築物能源效益條例》、《建築物能源效益守則》及《能源審核守則》，並為各業界、專業團體及其他持份者舉辦約60場簡報會。

除了與業界及供應商聯繫外，本署亦明白到零售店舖也能發揮舉足輕重的作用，因為他們不單只在銷售產品方面直接受到影響，同時亦為本署站在前線向市民傳遞信息。為此，能源效益事務處已就各類受影響的產品印備一系列小冊子及快訊，並派遣職員到訪店舖派發宣傳資料，以及講解標籤計劃。

學校外展計劃

本署推行學校外展計劃，作為教育市民的工作之一。我們的職員會探訪學校，推廣機電安全及節能知識。本署不斷改善及更新教材，從而增加學生對講座的興趣，令計劃達到預期的成效。舉例來說，能源效益事務處已設計一套新的能源標籤展板，可在校訪時展出，又或供學校借用來舉辦流動展覽，以配合強制性標籤計劃第二階段的實施。此外，我們亦曾到幼稚園、青少年中心及老人中心進行超過217次探訪，向超過31,000名受眾宣傳升降機和自動梯及機動遊戲機的安全使用。

由於學校外展計劃的目標對象涵蓋幼稚園至中學生，同時為了增加較年輕學生對學校講座的興趣，本署自行創作卡通人物「e家」，於各宣傳刊物及短片中採用，這些卡通人物極富創意，對本署各部份的外展講座十分有用。此外，所創作的故事都圍繞「e家」一家人發生，讓年輕學生觀看時感到有趣，而日常生活的題材令年輕學生容易產生聯想，從而讓他們及早在日常生活中養成節能習慣及採納正確做法。

Interactive Website to Create Public Awareness

In order to encourage the public to select more energy efficient products as well as to raise public awareness of energy saving issues, the Office launched a new website "Energy Label Net" www.energylabel.emsd.gov.hk on 6 August 2012, which is dedicated to provide information on energy labelling and energy saving products. The website is full of information about MEELS, a list of products covered under the scheme, as well as a list of products removed from the scheme. Various publications, pamphlets and newsletters providing quick access to relevant information are also available for download.

Direct Contact with Trades and Retail Sales

The success of implementation of the mandatory labelling scheme relies on the cooperation between EMSD and the trades. In addition to the promotion of the second phase of MEELS, the Office was also heavily involved in the promotion of the Buildings Energy Efficiency Ordinance (BEEO), Building Energy Code (BEC) and Energy Audit Code (EAC) throughout 2012 and organised about 60 briefings for various trades and professional organisations, as well as other stakeholders.

Apart from communication with the trades and suppliers, the department also recognises the important role that retail shops play, for not only are they directly affected in the selling of products, they also act as the frontline for the department in terms of disseminating information to the public. Therefore, the Office published a series of pamphlets and newsletters regarding each category of appliances affected and knowledgeable staff were sent to retail shops to distribute promotional materials and to explain the labelling scheme.



學校外展計劃探訪幼稚園，向小朋友推廣安全意識，自小養成良好的習慣。
School Outreach Programme includes kindergarten visits which can promote safety awareness to children, instilling a habit of good practice early in their lives.

School Outreach Programme

As part of our effort to educate the public, the department operates a School Outreach Programme with staff visiting schools to give talks to promote electrical and mechanical safety as well as energy conservation. To facilitate the success of the programme, the department continuously enhances and updates its teaching tools to make these school visits more interesting for the students. For instance, in conjunction with the implementation of the second phase of MEELS, the Energy Efficiency Office devised a new set of exhibition panels on Energy Labels which could either be displayed during school visits, or available for loan to schools as mobile exhibitions. Furthermore, over 217 visits were also made to kindergartens, youth centres and elderly centres to promote the safe use of lifts and escalators, as well as amusement rides safety, reaching an audience of over 31,000 participants.

As the target audience of the SOP ranges from kindergarten to secondary school students, and to make the school talks more interesting for the younger students, the department created e-Family cartoons which are featured in their above-the-line promotion materials as well as videos, and proven to be a useful and creative tool for the department's outreach talks. Moreover, the stories featuring the e-Family are fun for young students to watch and their life-like scenarios make it easy for them to relate to, thus cultivating a habit of energy saving and good practice early in their lives.



機電署外展計劃安排同事到訪老人院，提醒他們使用家居電器時需小心的事項。
EMSD's Outreach Programme arranges colleagues to visit the elderlies at nursing homes, reminding them to be careful when using electrical appliances.



▶ 機電署的宣傳短片已上載YouTube Channel，供市民隨時瀏覽和下載。
All EMSD's videos are uploaded onto its dedicated YouTube Channel so that the public can view or download at their leisure.

運用具創意的宣傳工具

去年，電力法例部為註冊電業工程人員製作了第三輯教育短片，在本署新開設的YouTube頻道播放，作為直接接觸市民及業界的渠道。新短片「電工學堂之停電工作方程式」講述在不同的電力裝置的場所工作時應如何關掉電源，以避免在帶電情況下工作，減低風險，並解釋如何實施工程許可證制度。該短片有助提高業界的電力安全意識。

鑑於市民的電力安全意識十分重要，電力法例部已加強年輕一代的早期教育及向他們宣傳正確的做法。基於這個信念，電力法例部在去年投放資源創作了「e家」一家人，顯示我們有長遠的計劃，決心推廣安全意識文化。



中華基金中學
物理科主任唐敏中老師
Mr Jacky Tong, Head of Department (Physics)
The Chinese Foundation Secondary School

聯繫年青一代

教育改革和現代教學方法加深大家對教育的認識。機電署明白到傳授知識不再只局限在課堂以內，因此，其轄下能源效益事務處一直推行教育計劃，到學校進行外展探訪。

中華基金中學物理科主任唐敏中老師表示：「機電署學校外展計劃（下稱「外展計劃」）大大補足了我們課程的內容，使之更加豐富。外展計劃為學生提供有關能源效益和節能的額外知識，擴闊他們的知識領域。」

中華基金中學成功地將機電署外展計劃融入其學校課程內，在過去曾邀請外展計劃的職員就能源效益及節能等課題進行演講，例如傳統照明與LED燈的分別。唐先生稱讚說：「機電署代表的解說十分專業，配備各種教材，例如宣傳短片、簡介和解說前後的問答遊戲，也讓學生更感興趣。」

同樣地，能源效益事務處亦運用外展計劃宣傳機電署的政策。舉例來說，處方製作了四個流動展板，可借給學校及團體用作流動展覽。

外展計劃亦協助機電署聯繫其他受眾。2013年4月，中華基金中學舉行開放日，邀請外展計劃在當日設置一個攤位，這是一個黃金機會，可讓本署向參觀人士宣傳有關政策和計劃。

唐先生表示：「開放日當天，機電署的攤位很受歡迎，學生對攤位的互動遊戲極感興趣。事實上，我們已遞交另一份申請，邀請機電署再次參加本校在7月舉行的家居節能嘉年華。」

Use of Creative Promotional Tools

Utilising the department's newly launched YouTube video channel as a direct mean to reach the public and trades, the Electrical Legislative Division produced its third educational video for the REWs last year. The new video, "Switch off electricity supply before electrical work" helped raise trade awareness on electrical safety, illustrating the way to shut power off in order to avoid live work when working on different parts of an electrical installation to reduce risk, and explaining the way the permit-to-work system works.

Recognising the importance of public awareness of electrical safety, the Electrical Legislation Division has placed much importance on early education and promotion of good practices with the younger generation. With this purpose in mind, the Division invested resources in the creation of the "e-Family" last year, indicating its long term commitment in the promotion of a safety awareness culture.



Reaching out to Younger Generations

Education reform and modern teaching methods deepen the concept of education to the effect that the imparting of knowledge is no longer limited to just within the classroom. Hence, EMSD's Energy Efficiency Office has been running an educational programme that organises outreach visits to schools.

"EMSD's School Outreach Programme (SOP) is a great supplement to enrich our syllabus. It enhances our students' knowledge base by providing them with additional knowledge on energy efficiency and conservation," commented Mr Jacky Tong-man Chung, a Physics teacher of The Chinese Foundation Secondary School.

The Chinese Foundation Secondary School has successfully integrated the department's SOP with its school syllabus, and has in the past invited SOP's staff to speak to the school regarding energy efficiency and conservation topics such as the differences between traditional and Light Emitting Diode (LED) lights. "The EMSD delegate's presentation was very professional, and she had all these teaching tools like video clips, PowerPoint presentations and pre-and post-quizzes, which made it more interesting for the students," commented Mr Tong.

Similarly, the Office also utilised the SOP to publicise the department's other policy promotions. For instance, as part of the promotion of the Mandatory Energy Efficiency Labelling Scheme, the Office has commissioned four road show kiosks, which could be lent to schools and organisations for use as mobile exhibits.

The SOP also helped the department reach out to other audiences. The SOP was invited to set up a booth during The Chinese Foundation Secondary School Open Day in April 2013, which was a golden opportunity to promote its policies and schemes to visitors.

"The EMSD kiosks were very popular during our open day, and the students loved their interactive games. In fact, we have already submitted another application to invite EMSD to return to our school to participate in our Energy Conservation Carnival in July!" Mr Tong said.