## 規管服務業務概覽 Regulatory Services Achievements Overview

### 抱負 Vision

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

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

### 使命 Mission

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

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

### 信念 Values

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





### 高層管理人員 **Senior Management**



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

- 薛永恒太平紳士出任機電工程署副署長/規管服務至2013 年12月20日
  - Mr Sit Wing-hang, Alfred, JP was Deputy Director/ Regulatory Services, EMSD up to 20 December 2013
- 李國強先生出任機電工程署助理署長/電力及能源效益至 2013年8月7日
  - Mr Li Kwok-keung was Assistant Director/Electricity and Energy Efficiency, EMSD up to 7 August 2013
- 賴漢忠太平紳士出任機電工程署助理署長/氣體及一般法 例至2013年8月7日
  - Mr Lai Hon-chung, Harry, JP was Assistant Director/Gas and General Legislation, EMSD up to 7 August 2013
- 林志賢先生出任機電工程署部門會計師至2013年5月1日 Mr Lam Chi-yin was Departmental Accountant, EMSD up to 1 May 2013



副署長 Deputy Director 副署長/規管服務 Deputy Director/Regulatory Services



助理署長 Assistant Director 助理署長/鐵路 Assistant Director/Railways



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



助理署長 Assistant Director 助理署長/電力及能源效益 Assistant Director/Electricity and Energy Efficiency Departmental Accountant



會計師 Accountant 部門會計師



秘書 Secretary 主任秘書 Departmental Secretary

### 業務回顧

### **Operations Review**



胡建明太平紳士 Mr Woo Kin-ming, JP

機電工程署副署長/規管服務 Deputy Director/Regulatory Services, EMSD

規管服務承接上一年的工作動力,在 2013/14年度繼續加強各項機電安全及 能源效益工作,精益求精,朝着使全港 市民安全安心的目標邁進。

### 推動業界參與 加強機電安全

推動各方持份者參與並進行有效溝通, 是我們的首要工作之一,因為這是讓持 份者充分理解和履行其法定與其他責任 的最佳辦法。恆常與持份者保持聯繫, 也是我們凝聚各方人士,攜手加強公眾 安全和能源效益的關鍵。

在2013/14年度,我們與持份者同心協作的突出例子,包括於2013年6月成立升降機及自動梯安全諮詢委員會,以配合和促進《升降機及自動梯條例》(第618章)的實施。

升降機及自動梯安全諮詢委員會有17 位成員,廣泛代表不同的持份者,包括 升降機及自動梯業界、物業管理公司、 專業團體、培訓機構及市民大眾。委員 會首先進行的工作之一,就是全面改善「註冊升降機及自動梯承辦商表現評級」制度,除了原有的安全要求外,更加入對服務表現的要求。

我們年內與持份者同心協作的又一成功例子,是與提升車輛維修服務水平有關。我們現有兩個相關的自願性計劃,即2007年推出的「車輛維修技工自願註冊計劃」以及2013年推出的「車輛維修工場約章計劃」。雖然技工自願註冊計劃推出初期反應踴躍,註冊技工人數近

年卻見下降趨勢;至於工場約章計劃, 則暫時尚未吸引到大量工場簽署加入。

積極推動受規管業界的持份者參與,對提高從業員的安全知識十分重要。這方面的工作可透過多種形式進行,比如與業界合辦活動,例子之一是與電業界合辦的2013年「傑出註冊電業工程人員選舉」。這比賽已是第二年舉行,並新添了實務測試環節,考驗參賽者的實務工作表現。

Building on last year's momentum and with a goal of providing safety and peace of mind for all in Hong Kong, Regulatory Services continued to improve its work in enhancing E&M safety and promoting energy efficiency in 2013/14.

### ENGAGE STAKEHOLDERS FOR E&M SAFETY

Stakeholder engagement is a priority in our work as it is the best way to make sure our stakeholders understand and properly discharge their statutory and other duties. Regular dialogue with stakeholders is also the key to bringing different parties together to jointly enhance public safety and energy efficiency.

Several instances of stakeholder engagement in 2013/14 merit special mention, including the Lift and Escalator Safety Advisory Committee (LESAC) set up in June 2013 to facilitate the implementation of the Lifts and Escalators Ordinance (Cap 618).

The 17-member LESAC comprises representatives of a wide range of stakeholders, including the lift and escalator trade, property management companies, professional institutes and training bodies as well as the public at large. One of its first tasks was to overhaul the Registered Lift and Escalator Contractors' Performance Rating (CPR) System to include service performance elements as well as safety.

Contractor ratings under the revamped CPR, with the green star for safety and blue star for service performance attributes, are posted on a quarterly basis on the EMSD website, helping owners to select high-performing contractors. The transparency of CPR also motivates contractors to deliver quality service. Alongside the revamp, we also implemented a publicity programme, including talks for Incorporated Owners and property management companies to make sure they understand their statutory duty to

keep lifts and escalators safe.

Another example of successful stakeholder engagement relates to enhancement of vehicle maintenance. EMSD currently operates two associated voluntary schemes: the Voluntary Registration Scheme for Vehicle Mechanics, launched in 2007, and the Vehicle Maintenance Workshop Charter Scheme, launched in 2013. Although the former got off to a good start, the number of registered vehicle mechanics has dropped in recent years, while the Charter has yet to attract a sizeable number of signatories.

The Vehicle Maintenance Technical Advisory Committee has reviewed the situation and agreed on going full steam in developing new parameters to turn the Vehicle Maintenance Workshop Charter into a voluntary workshop registration scheme and to attracting more workshops of all sizes to join. It will also explore ways to boost registration of vehicle mechanics in 2014/15. Indeed, the vehicle maintenance trade has many stakeholders with diverse interests, and the Committee provides a good forum for exchanging views and forging a bright future for the trade.

Engaging stakeholders in all our regulated trades is vital to promoting safety knowledge among practitioners. Engagement takes many forms, such as organising joint events. An example was the Outstanding Registered Electrical Worker Awards 2013, which we held in collaboration with the electrical trade. Now in its second year, the competition has evolved to include a trade test to assess participants' practical work performance.

### FURTHER PROMOTE ENERGY EFFICIENCY

The Buildings Energy Efficiency Ordinance (Cap 610) came into full operation on 21 September, 2012. A new development in 2013/14 was the review and upgrade of the "lighting power density" requirement in the Building Energy Code (BEC) undertaken by the Technical Taskforce for Mandatory Implementation of the BEC in late 2013. The tightened BEC standards will contribute in general to a 10% to 15% improvement in lighting energy performance when implementation begins later in 2014.

The BEC Taskforce will also review other BEC standards of lighting, air-conditioning, electrical and lift and escalator installations every three years to ensure continuous energy performance improvement. As such, a consultation with the trade will take place in 2014/15 for the comprehensive review.

During the year, we also completed the installation of 100 medium-speed electric vehicle charging points at government car parks, as part of our work to support the Government's initiative to encourage wider adoption of electric vehicles. The new charging points are up to 60% faster than standard ones.

### **GEAR UP STAFF EXPERTISE**

In regulatory work, nothing is more important than staff expertise, which is essential to discharging our duties as gatekeepers for the community's safety and well being. The public rightly expects us to be equipped with the knowledge and skills to meet their expectations, not to mention being aware of technology developments and other relevant trends. Gearing up staff expertise has always been our focus.

To support the Government's initiative to increase housing land supply, our Gas Standards Office has been conducting prima facie risk assessments of land use proposals to identify and address any potentially insurmountable problems before development work begins. If sites of potential developments may be affected by nearby gas installations, developers of the sites are required to substantiate their development

### 進一步推廣能源效益

《建築物能源效益條例》(第610章)已於2012年9月21日全面實施。2013/14年度的新發展,是強制實施《建築物能源效益守則》技術工作小組在2013年年底檢討和提高了《建築物能源效益守則》的照明功率密度要求。經修訂的《建築物能源效益守則》標準會在2014年稍後時間實施,屆時,照明能效表現一般會提高10至15%。

上述工作小組也會每隔三年,定期就《建築物能源效益守則》內有關照明、空調、電力、升降機和自動梯裝置的標準進行檢討,確保可持續提升能源效益表現。與業界就下一輪檢討的諮詢工作,會在2014/15年度進行。

年內,我們在各政府停車場安裝了100 個電動車中速充電器,這是我們對政府 鼓勵市民更多使用電動車的其中一項支 援工作。中速充電器的速度,可較標準 充電器快達60%。

#### 提升員工專業才能

對規管工作來說,沒甚麼比員工的專業才能更為重要,因為只有能幹的員工, 方可讓我們充分發揮保障公眾安全和福祉的角色。市民期望我們具備豐富的專業知識和技能以配合社會需要,同時又 能緊貼科技發展與其他相關趨勢。這些 都是市民的合理期望。因此,提升員工 的專業才能,一直是我們的工作重點。

為支援政府增加建屋用地的政策,我們的氣體標準事務處正就個別建議用地進行初步風險評估,務求在發展工作尚未開展前,找出並處理任何可能無法解決的問題。建議發展地段如因鄰近的氣體裝置而出現潛在風險,發展商必須就有關發展計劃向氣體標準事務處呈交詳盡的「定量風險評估報告」,以供我們作獨立評估。由於有關工作預計會大幅增



加,我們已強化員工在定量風險評估方面的專業才能,並會繼續透過海外培訓、實務練習和同事間的經驗分享,不斷提升員工這方面的專業才能。我們並已成立「氣體工程系統」知識區和「定量風險評估睿智小組」,促進同事間的知識交流。

信號技術的不斷進步,讓我們能採用無需司機駕駛的全自動列車控制系統。與種操作模式在世界各地日趨普遍。興建中的南港島綫(東段),在設計上也於馬門全自動列車控制模式操作。由於東東軍控制系統,是以一套發展,面世界多的列車運作技術為基礎,而世界多個人主要城市,例如巴黎、倫敦、溫哥華份對東東,也正廣泛應用這系統於到上至路機,我們已積極安排專業人員到在安路,我們已積極安排專業人員到在安的經驗。

### 前瞻與未來工作

規管服務的目標是讓公眾安全安心,我們來年會致力於三個重點工作範疇:推動持份者參與、提升員工專業才能、探討訂立「預警指標」。

### 業務回顧 Operations Review

projects with detailed Quantitative Risk Assessments (QRA) to our Gas Standards Office for independent reviews. As we anticipate a surge in QRA work, we have already strengthened and will continue to enhance our staff expertise in QRA via overseas training, hands-on practice and peer experience sharing in use of QRA modelling. We have also set up a Gas Engineering System Knowledge Area and QRA Interest Group for knowledge sharing among colleagues.

Advancement of signalling technology has resulted in fully automatic train operation (FAO) being achievable, without a driver in the cab. This operational practice has become increasingly common in the world. The South Island Line (East) under construction is also designed to be FAO capable. As FAO is based on a set of mature and well developed railway operation technologies and is being commonly adopted in some railway lines in many major cities such as Paris, London, Vancouver and Copenhagen, we have begun to pro-actively send our professional staff to those cities to learn from the experience of operators in respect of operational safety.

### OUTLOOK AND TASKS AHEAD

With "safety and peace of mind for the public" as our objective, we shall focus on three areas in the next year, namely engaging stakeholders, raising staff competence and developing "precursors".

Engaging key stakeholders in the regulated trades is vital to taking many initiatives forward. For example, cut-throat prices in lift maintenance contracts in the private sector could lead to poor maintenance and incidents, but the lack of available data makes it difficult for lift owners to choose among

potential contractors. We have thus commissioned an independent survey to collect the maintenance price for lifts in private buildings. The findings, available progressively from late 2014, will provide a useful reference for lift owners in selecting their contractors.

We also commissioned an independent survey of registered lift workers, engineers and contractors to identify issues of importance to the trade and to gather data such as concerns faced by the trade and salaries of trade practitioners. The results of this survey, to be available by late 2014, will help us identify and address stakeholder problems.

The trade will also be invited to contribute ideas and participate in initiatives in the coming year, such as the proposed Voluntary Vehicle Maintenance Workshop Registration Scheme. As to the Mandatory Energy Efficiency Labelling Scheme, work to upgrade its energy efficiency grading standards is in full swing. We shall continue to count on communication with manufacturers, importers and retailers, as well as feedback from the stakeholders, when we launch the new energy efficiency grading standards for air-conditioners, refrigerators and washing machines.

The challenges we face in Regulatory Services are diverse and dynamic. To help staff perform more effectively, we shall conduct a review of staff competencies in the coming year, with a view to rolling out a structured staff competency development exercise that is aligned with EMSD's knowledge management initiatives. We shall also reinforce the concept of "service value" at all levels so that Divisions are clear about the value they aim to create.

The final point is about "precursors".

Similar to leading indices in economic forecasts, we believe certain patterns or phenomena could signal the possibility of incidents. Some examples are the age profile of workers, maintenance pricing levels and pace of increase in the number of E&M installations. Certain patterns in these and other precursors can signal heightened risk of incidents and other issues, such as labour shortage or declining standards of maintenance quality. At the same time, some precursors may indicate improvement opportunities, such as technology developments that open up opportunities for an energy standard upgrade. We will establish precursors in 2014/15 for better strategic planning.

#### **APPRECIATION**

Regulators are only effective if regulatees cooperate and discharge their duties. We are grateful to the trades and other stakeholders for their support in implementing various ordinances and schemes. We also appreciate their candour in raising concerns, which helps us improve our work.

Our dedicated colleagues deserve a big thank-you for their excellent work, integrity, professionalism and positive attitude. They are fully aware of the public's high expectations, which they have spared no effort to satisfy. I thank everyone in Regulatory Services and wish them great success in the years to come.

Woo Kin-ming

Deputy Director/Regulatory Services, EMSD

此外,我們也委託進行了另一獨立調查,以註冊升降機工人、工程師和承辦商為對象,找出業界關注的事項,及搜集諸如業界所面對的問題與從業員薪酬等資料數據。調查結果將於2014年年底就緒,會有助我們具體了解持份者面對的事項,並作出處理。

我們來年也會廣邀業界人士,就不同計劃給予意見並參與籌劃,例如建議推行的「自願性車輛維修工場註冊計劃」。至於「強制性能源效益標籤計劃」,有關優化能源效益評級標準的工作現正全面進行。我們在推行涵蓋冷氣機、雪櫃和洗衣機的新能源效益標準時,將會一如以往,十分重視與製造商、進口商和零售商的溝通,以及持份者的意見反饋。

規管服務面對紛繁多樣、不斷變化的挑戰。為提高同事工作的成效,我們來年會檢視員工的技能,以便推行一個與機電工程署知識管理策略相互配合的系統性員工技能發展計劃。我們也會加強向規管服務各層員工傳達「服務價值」的概念,敦促各部別同事清楚掌握其應創造的公眾價值。

#### 致謝

規管工作要取得成效,實有賴受規管業界的通力合作並切實履行法定責任。我們很感謝各方業界及持份者的支持,讓我們得以落實各項條例和計劃,也感謝業界坦率提出各項問題,讓我們改善工作。

我們的同事盡忠職守、誠信不阿、表現 出色專業並且積極主動。他們清楚知 道市民的期望,努力不懈滿足市民的需 要,我謹此向規管服務的每位同事致以 深切謝意,並祝未來有更豐碩的成就。

MIN

胡建明

機電工程署副署長/規管服務

### 重要活動 Highlights



以風險為本的巡查工作,加上在工地講解安全守則,對減少第三者損毀供電電纜事故相當有效。

Risk-based inspection and on-site safety briefings have proved effective in lowering third party electricity supply line damage incidents.

### 供電電纜損毀事故創新低

2013年涉及第三者損毀供電電纜事故的數目,從2012年的85宗跌至60宗,創出新低。事故數目大減,反映我們的重點巡查和宣傳活動,包括透過講座和研討會向承辦商及其他政府工務部門闡述在供電電纜附近施工的安全守則和規管要求,都已收到成效。此外,針對曾多次發生事故的承辦商,頻密到訪其工地向工人現場講解安全要點,對減少事故發生也有明顯功效。

### **ELECTRICITY SUPPLY LINE DAMAGE INCIDENTS AT RECORD LOW**

The year 2013 saw a record low of 60 incidents involving third party damage to electricity supply lines, compared to 85 in 2012. This reduction reflects the positive result of our focused inspection and publicity programme, which comprised talks and seminars for contractors and our fellow government works departments about the safety practices and regulatory requirements in works near electricity supply lines. Frequent worksite safety briefings, targeting contractors with a history of incidents, have also proved effective in lowering incident numbers.



年內我們的主要工作之一,是為政府就增加房屋供應而尋 得的土地,進行初步風險評估。

One of our key tasks during the year was to conduct prima facie risk assessments for land identified by the Government to boost housing supply.

#### 向政府就用地規劃提供氣體風險意見

作為政府的氣體風險顧問,我們支援政府積極尋找合適土地以增加本港的房屋供應。我們的職責,是根據已有的土地用途數據,在土地發展的早期階段,進行初步風險評估,以在發展工作尚未開展前,找出任何可能無法解決的問題。

有關地段如因鄰近的氣體裝置而出現潛在風險,發展商在敲定最終發展藍圖之前,必須呈交詳細的「定量風險評估報告」及各項緩解潛在風險的措施。作為公眾的氣體安全把關者,我們這項措施可確保新的住宅發展項目不會存在氣體風險。

### GAS RISK ADVISOR TO GOVERNMENT ON LAND USE

As the Government's gas risk advisor, we support its ongoing drive to identify suitable land to boost the housing supply in Hong Kong. Our responsibility is to conduct prima facie risk assessments at the early stages of the development process, using available land use data to identify potentially insurmountable problems before any development work begins.

For sites that could potentially be affected by nearby gas installations, developers are required to submit a detailed Quantitative Risk Assessment (QRA), complete with risk mitigation measures, before finalising their master layout plan. As the gatekeeper of gas safety for the public, this ensures that new residential developments are free of gas safety hazards.

### 加強對升降機及自動梯負責人的宣傳

根據《升降機及自動梯條例》,擁有升降機及自動梯的人士及業主立案 法團,以及物業管理公司,都是「負責人」,故此也是政府實施該條 例的主要持份者。我們為此透過不同渠道,加強對負責人進行有關升 降機及自動梯的安全宣傳和教育工作,例如舉行了20多場簡報會,講 解如何挑選及管理升降機和自動梯承辦商,又在機電工程署網頁推出 「負責人天地」,上載相關資訊和工具,同時全面改善「註冊升降機及 自動梯承辦商表現評級」制度及評級的公布模式,以及在部門網頁提供 政府場地的升降機保養價格數據和標準保養合約樣本等。此外,我們 也透過單張、短片和常見答問等資訊,向市民宣傳保養升降機和自動 梯的重要性。

### ENHANCED PUBLICITY TO LIFT AND ESCALATOR RESPONSIBLE PERSONS

Owners and incorporated owners of lifts and escalators, as well as property management companies, are considered Responsible Persons (RPs) under the Lifts and Escalators Ordinance and, as such, are key stakeholders in its implementation. We have accordingly enhanced our lift and escalator safety publicity and education work for RPs through various channels. For example, we have organised more than 20 briefings on how to select and manage lift and escalator contractors; set up an RPs' corner on the EMSD website with pertinent tools and information; revamped the Lift and Escalator Contractors' Performance Rating system and presentation format; and made available maintenance price information of lifts at government premises as well as sample maintenance contracts. The public is also informed of the importance of lift and escalator maintenance via pamphlets, videos and FAQs.







機電工程署網站的「負責人天地」,提供資訊和工具,幫助負責人 就升降機及自動梯安全履行其法定責任。

The Responsible Person's Corner on the EMSD website provides access to information and tools to help responsible persons discharge their statutory duties regarding lift and escalator safety.



我們密切監察港鐵公司的安全管理系統,並時常提出改善 建議。

MTRCL's safety management system is monitored closely and improvement suggestions made from time to time.

#### 鐵路安全事故續降

本港鐵路網的安全事故持續下降。2013年,因設備故障和員工行為引起的鐵路事故持續減少,較2012年下降6%。事故數目趨降,是鐵路科人員加強巡查及定期檢測,以及香港鐵路有限公司(港鐵)持續作出改善的結合成果。我們亦已加強監察港鐵的安全管理系統,敦促港鐵時刻注意安全措施上的任何紕漏,持續進行改善。

#### RAILWAY SAFETY INCIDENTS FALL FURTHER

Safety incidents in our railway network continued to fall. The number of railway incidents caused by equipment failure and staff behaviour decreased further during the year, falling by 6% in 2013 from the figure in 2012. The downward trend is the combined result of enhanced inspections and regular checks by our Railways Branch and on-going improvements by MTR Corporation Limited (MTRCL). We have also stepped up the monitoring of MTRCL's safety management system so that the Corporation is alerted from time to time to any gaps in its safety measures for improvement.



我們推出的節能約章,廣受業界和商界人士歡迎。 Our energy efficiency charters attracted enthusiastic response from the trade and business sector.

### 兩個節能約章得到積極支持

年內我們推出了「室內溫度節能約章」優化版和全新的「不要鎢絲燈泡節能約章」。「室內溫度節能約章」於2012年首次推出,鼓勵發展商和物業管理公司承諾在6月至9月期間,將商場、商鋪、辦公大樓及辦公室的室內平均溫度維持在攝氏24至26度,以減少空調耗電量。

「「不要鎢絲燈泡」節能約章」旨在鼓勵供應商和零售商承諾不再補充指定的鎢絲燈泡,並由2013年12月底開始停售指定的鎢絲燈泡,從而終止使用能效較低的鎢絲燈泡。業界對兩個約章都相當支持,反應積極。

### GOOD RESPONSE TO TWO ENERGY EFFICIENCY CHARTERS

An improved version of the Energy Saving Charter on Indoor Temperature, and a new Energy Saving Charter on No Incandescent Light Bulbs (also known as the "No ILB Charter"), were introduced during the year. The Indoor Temperature Charter, first introduced in 2012, urges developers and property management companies to pledge to maintain an average indoor temperature between 24 and 26 degrees Celsius in shopping malls, shops, office buildings and offices from June to September so as to use less electricity for air-conditioning.

The "No ILB Charter" aims to end the use of less energy efficient ILBs by urging suppliers and retailers to pledge not to replenish the targeted ILB stocks nor sell the targeted ILBs from the end of December 2013. Both Charters have enjoyed enthusiastic support from the respective trades.

#### 區域供冷系統投入服務

區域供冷系統第一期和第二期工程已如期完成,並已開始為2013年6月啟用的啟德郵輪碼頭,以及附近一個商場的空調設施供應冷水。這是香港首個區域供冷系統,有關進展是區域供冷工程的一個重要里程碑。

第三期(A組)工程將於2016年完成,目前進展良好。第三期全部工程預計可於2022年左右完成,屆時整個區域供冷系統應可全面投入服務。系統落成後,預計每年可節省達8 500萬千瓦小時電力。

### **DISTRICT COOLING SYSTEM OPERATIONAL**

Phases I and II of the District Cooling System (DCS) were completed on time and began supplying chilled water for air-conditioning facilities serving the Kai Tak Cruise Terminal, which opened in June 2013, and a nearby shopping centre. This was a milestone for the DCS project, the first of its kind in Hong Kong.

Phase III (Package A) works, scheduled for completion by 2016, is making good progress. The system should be fully operational around 2022, when Phase III is due to be completed. Upon completion, the DCS is expected to generate electricity savings of up to 85 million kWh per annum.



啟德發展區區域供冷系統北廠鳥瞰。該系統由2013年6月起,為郵輪碼頭和一個商場供應空調用冷水。 Aerial view of the Kai Tak District Cooling System North Plant. The System began supplying cold water for air-conditioning to the Cruise Terminal and a shopping centre in June 2013.





### 電力安全

### 供電電纜損毀事故創新低

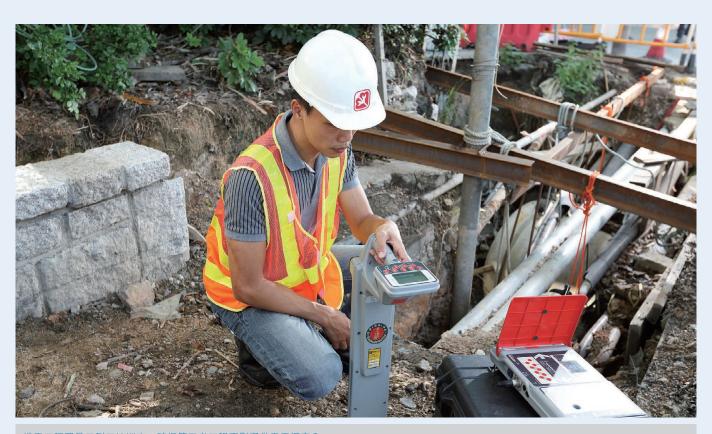
2013年涉及第三者損毀供電電纜事故的數目跌至60宗,是《供電電纜(保護)規例》自2001年全面實施以來的新低。這類事故數目下降的主要原因,是電力法例部在年內推行了重點性巡查和宣傳活動,針對曾多次發生事故的承辦商,頻密到訪工地現場向工人講解安全要點。

第三者損毀供電電纜事故數目下降,不 但讓工人可在更為安全的環境下工作, 也減少了對公眾造成的電力供應干擾。 我們的目標,是進一步減低這類事故的 數字。

### 註冊電業工程人員持續進修

「註冊電業工程人員持續進修計劃」進展順利,現時所有註冊電業工程人員都必須按照規定,完成「法例及安全規定」與「技術知識」兩個培訓單元,方可申請每三年一次的註冊續期。進修

計劃於2012年1月生效,因此,全港 逾74 000名註冊電業工程人員都必須在 2014年年底前,完成持續進修以辦理 註冊續期。續期申請的處理工作也進行 順利。



機電工程署員工到工地巡查,確保第三者工程不影響供電電纜安全。 EMSD staff inspect worksites to make sure electricity supply lines are safe from third party works.



透過推行註冊電業工程人員持續進修計劃,提升電業界的安全意識及技術水平。 Implementation of the CPD Scheme for REWs helps in enhancing the safety awareness and technical standard of the electrical trade.

#### **ELECTRICAL SAFETY**

### Electricity Supply Line Damage Incidents at Record Low

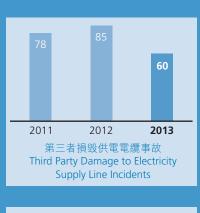
The number of incidents involving third party damage to electricity supply lines fell to 60 in 2013, a record low since the Electricity Supply Lines (Protection) Regulation came into full operation in 2001. This reduction is largely attributable to a focused inspection and publicity campaign by the Electricity Legislation Division. Frequent worksite safety briefings targeting contractors with a history of incidents were a key part of the campaign.

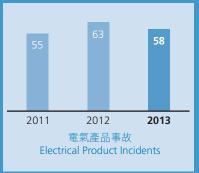
With fewer third party electricity supply line damage incidents, we provide a safer environment for workers and there is less power interruption for the public. We shall aim to further reduce such incidents.

### **Professional Development** for REWs

The Continuing Professional Development (CPD) Scheme for Registered Electrical Workers (REWs) has progressed smoothly. REWs must now complete the requisite two-module training in "legislative and safety requirements" and "technical knowledge" before applying for renewal of registration every three years. The Scheme came into effect in January 2012 and thus all 74 000-plus REWs will need to renew their registration and therefore go through CPD training by the end of 2014. Processing of the renewals has been smooth.











2013年「傑出註冊電業工程人員選舉優勝者」共慶獲獎。這類比賽有助業界提高安全 意識和技術水平。

Winners of the Outstanding Registered Electrical Worker Awards 2013 shared a happy moment. These contests help raise the trade's safety awareness and skills.

### 傑出註冊電業工程人員選舉

為鼓勵電業界持續進修的風氣,我們於 2013年聯同「港九電器工程電業器材 職工會」及「香港電器工程商會」再次 舉辦「傑出註冊電業工程人員選舉」, 比賽宗旨是提升電業界的安全意識和專 業水平。所有參賽者必須完成筆試,入 圍者跟着接受今年新加入的實務測試考 核,之後由評審小組進行面試。

### 巡查老化樓宇

老化樓宇由於狀況逐漸變壞,往往有安全風險。以固定電力裝置為例,在法例上獲字(其中多為老化樓宇)在法例上獲將免,無須為固定電力裝置進行定會大經費,無須為固定電力裝置進行會會大經費,我們採取了領方。與此,我們採取了領方。與此,我們採取了有需要時,則檢定之。與此,大經費,有需要時,則檢測,與促棄主為樓宇的固定電力裝置安排檢過,對提高社區整體電力安全確有幫助。



機電工程署署長與「傑出註冊電業工程人員選舉」金獎得主。

Director of Electrical and Mechanical Services and the Gold Prize winner of the Outstanding Registered Electrical Worker Awards.

### **REW Awards**

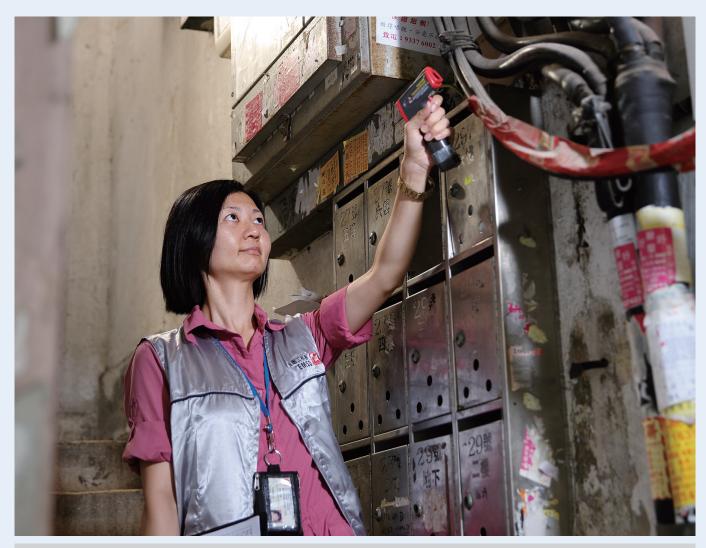
To promote continuous learning, we again organised the Outstanding Registered Electrical Worker Awards Scheme in 2013, in collaboration with the Hong Kong & Kowloon Electrical Engineering & Appliances Trade Workers Union and the Hong Kong Electrical Contractors' Association. The competition aims to raise the electrical trade's safety awareness and professionalism. All entrants were required to complete a written test, after which there was a practical trade

test for the finalists, which was new this year, before being interviewed by the adjudication panel.

### **Aging Buildings Inspection**

Aging buildings are a challenge to safety as their conditions deteriorate. Take fixed electrical installations for example. Certain buildings, mostly aging buildings, are exempt from the statutory requirement of periodic inspection, testing and certification (PITC), but

they still present electrical incident risks to occupiers and the neighbourhood. We have hence deployed extra administrative measures to inspect these old buildings, and where necessary urge their owners to arrange for PITC and take remedial measures. We believe the extra step has helped raise electrical safety for our community as a whole.



為確保社區的電力安全,我們主動巡查老化樓宇,如有需要,會敦促業主就大廈固定電力裝置進行檢測。
To ensure electrical safety in the community, we pro-actively inspect aging buildings and urge owners to conduct inspection and testing of their fixed electrical installations where necessary.

### 監察零售網站出售不合規格電氣 產品

全球化電子商貿快速發展,越來越多本 地消費者跨國界上網購物,對我們的電 氣產品安全執法工作帶來挑戰,特別是 遇上交易實質上不在香港進行,而貨物 也非在香港境內供應的情況,令我們難 以作出檢控。 為保障消費者,我們定期監察各個流行 零售網站,查找不合規格的電氣產品。 一旦發現此類產品,我們會通知網站在 港的負責人或代表,提醒他們該產品會 對顧客及市民大眾帶來的風險和觸犯有 關規例的罰則。我們的主動監察,有助 從源頭阻截有潛在危險的電氣產品流出 市面。

#### 未來重點

電力法例部未來的工作重點,是繼續減低事故、與業界保持聯繫並推展安全教育工作,同時推動市民留意電力安全及加強這方面的認識。我們也會密切注意科技發展,對可能影響電力安全的各種新趨勢及新挑戰作出回應,並繼續監察和處理老化樓宇的潛在電力安全風險。



### 確保老化樓宇的電力安全

老化樓宇的維修保養一向令人關注。在缺乏適當維修保養下,這類樓宇可能會出現電力安全問題。特別是那些固定電力裝置允許負載量低於100安培,故此可無須按法例規定安排電力裝置定期檢測及領取證明書的老化樓宇。我們認為有必要透過行政手段處理這個問題。

由2008/09年度開始,我們已主動對全港這類老化樓宇作出巡查,至今已完成巡查約2 300幢舊樓。我們委託承辦商先就目標老化樓宇進行首輪目視檢查,鎖定固定電力裝置狀況欠佳的老化樓宇,再由電力法例部的督察進行跟進巡查以了解情況;如有需要,會聯絡樓宇的業主,敦促他們為樓宇的固定電力裝置安排一次檢測及領取證明書。

特寫 Profile

我們認為這措施對保障公眾安全有重大意義,因為老化樓宇一個小小的電力問題,都有可能釀成重大事故, 後果可以相當嚴重。為確保社區電力安全,我們很樂意多走一步。

### **Ensuring Electrical Safety in Old Buildings**

Building maintenance is always a concern for old buildings. Lack of proper maintenance for these buildings may lead to problems of electrical safety. This is especially so because some of these old buildings may not be subject to the requirement of periodic inspection, testing and certification (PITC) under the law, as the approved loading of fixed electrical installation is below 100 amperes. It is important that we deploy some administrative measures to address the issue.

Starting in 2008/09, we have taken the pro-active initiative to inspect such buildings and to date have covered about 2 300 old buildings throughout the territory. Our contractors undertake the initial visual screening of the target old buildings, and identify those with unsatisfactory conditions. Inspectors from our Electricity Legislation Division then make follow-up inspections of those buildings and, where necessary, will contact the property owners and request them to arrange PITC work.

We believe this initiative has brought major safety benefits to the public, as a minor fault in an old building could turn into a major incident with serious consequences. We are happy to have gone the extra mile to ensure electrical safety for the community.



香港與內地的電氣產品業界代表,於2013年8月在本港舉行的業界研討會上,與國家質檢總局官員交流意見。 Representatives of the Hong Kong and Mainland electrical products trades exchanged views with AQSIQ officials at a trade seminar in Hong Kong in August 2013.

## Retail Portals Monitored for Substandard Appliances

The rapid development of global e-commerce means that more local consumers are purchasing electrical appliances online across national borders. This poses challenges to our enforcement of electrical product safety regulations. In particular, prosecution is difficult when the transaction does not physically take place in Hong Kong, nor are the goods supplied here.

To protect consumers, we now monitor popular retail portals to identify substandard electrical products. If such goods are found, we alert the website operator in Hong Kong or its local representative to the risks to their customers and the community, and remind them the penalty for contravention of the relevant regulation. This proactive action helps curtail the supply of potentially hazardous appliances at source.

#### **Future Focus**

Looking ahead, the Electricity Legislation Division will continue to focus on incident reduction, trade education and communication, and engaging with the community to promote safety knowledge and awareness. We shall also keep a close eye on technology developments and respond to new trends and challenges that may impact electrical safety, while monitoring and managing potential safety risks in the city's aging buildings.

#### 氣體安全

### 氣體事故持續下降

根據氣體標準事務處統計,2013年的 氣體事故降至218宗,較2011的275宗 及2012年的226宗為低。氣體事故數目 持續下降,是有效的氣體安全宣傳教育 與風險為本巡查工作的結合成果。

年內,我們繼續為業界及市民進行多渠道的安全宣傳活動,包括會面商談和簡報會,透過網站、電郵進行聯繫溝通,以及為承辦商或顧問公司舉行安下氣體座。後者旨在防止第三者損毀地下建造階候管事故發生,通常與涉及重大建造工程項目的政府部門或公營機構聯手舉辦。此外,為方便持份者更易取得氣體安全資訊,我們於2013年5月推出新的一站式「氣體安全網站」,提供全面的

氣體安全知識,包括各種資訊工具和遊戲,滿足公眾和業界需要。

### 向政府就用地規劃提供氣體風險 意見

政府近年致力尋找合適土地及推出賣地計劃以增加房屋供應。在宏觀層面,我們於2013/14年的一項貢獻,就是協助政府就各項土地用途建議進行初步風險評估。

作為政府的氣體風險顧問,氣體標準事 務處根據已有的土地用途數據,在規劃 早期階段即對土地進行初步風險評估, 以在發展工作尚未開展前,找出任何可 能無法解決的問題。我們的評估工作, 對需要就鄰近設有氣體裝置的土地進行 安全有效的用途規劃和發展的政府部 門,提供了十分重要的支援。

有關地段如因鄰近的氣體裝置而出現潛在風險,發展商在敲定最終發展藍圖之前,必須向作為氣體安全監督的氣體標準事務處,呈交詳盡的「定量風險評估報告」及各項緩解潛在風險的措施。我們是公眾的氣體安全把關者,而政府也會繼續致力選覓土地以增加房屋供應,因此,預計我們為支援土地用途規劃而進行的風險評估工作,將會不斷增加。



作為政府的氣體風險顧問,我們就鄰近設有氣體裝置而又需要發展的土地進行風險評估。這方面的工作將陸續增加。 As Government's gas risk adviser, our risk assessment work in support of land use planning in the vicinity of gas installations is likely to increase.



我們常與涉及重大建造工程項目的政府部門和公營機構,聯手為承辦商及顧問公司舉辦氣體安全簡報會,防止發生第三者損毀地下氣帳事故。 Gas safety briefings for contractors and consultants, often held in collaboration with other departments and public bodies with major construction projects, to avoid third party damage to underground gas pipes.

### **GAS SAFETY**

### Gas Incidents Decreasing Trend

The Gas Standards Office reports that the number of gas incidents fell to 218 in 2013, down from 226 in 2012 and 275 in 2011. This decreasing trend is attributed to a combination of effective gas safety publicity and risk-based inspections.

During the year, we pressed ahead with our multi-channel safety publicity campaign for the trade and the general public. It included faceto-face meetings and briefings, communication via websites and emails, and safety briefings for contractors and consultants. The latter, which were intended to help avoid third party damage to underground gas pipes, were often conducted in collaboration with other departments and public bodies with major construction projects. To help our stakeholders access information easily, a new one-stop Gas Safety Portal was launched in May

2013. Catering to the needs of both the public and the trade, it presents comprehensive gas safety knowledge and includes tools and games.

### Gas Risk Advisor to Government on Land Use

The Government in recent years was keen to identify suitable land and mount land sales for boosting housing supply. On a macro level, our contribution in 2013/14 was to help the Government to carry out prima facie risk assessments on land use proposals.

As Government's gas risk adviser, the Gas Standards Office uses available land use data to conduct prima facie risk assessments at an early stage, identifying potentially insurmountable problems before any development work begins. Our work provides crucial support to departments that need to

safely and efficiently conduct land use planning and development in the vicinity of gas installations.

For sites that are potentially affected by nearby gas installations, developers are required to submit a detailed Quantitative Risk Assessment (QRA), complete with risk mitigation measures, to us as the Gas Authority, before finalising their master layout plan. We are the gatekeeper of gas safety for the public, and our risk assessment work in support of land use planning is likely to increase as the search for land to boost housing supply continues.



法例規定,石油氣車輛燃料缸必須每五年最 少檢驗一次。

Auto-LPG cylinders must be tested and revalidated at least once every five years as required by the law.

### 車用石油氣品質檢定測試及燃料 缸覆檢工作

年內,我們繼續定期監察車用石油氣品質,以確保符合指定要求,並將每周的石油氣樣本化驗結果上載至機電工程署網頁。與此同時,我們也密切監察氣油氣車輛燃料缸的覆檢情況。根據《氣體安全(氣體供應)規例》,石油氣燃料缸必須每五年最少檢測一次。鑑於目前下一個燃料缸覆檢高峰將於2015至2016年出現,我們正密切留意市場上的覆檢工場,我們正密切留意市場上的覆檢服務提供情況,確保有足夠設備充足至級為車主覆檢燃料缸,讓業界能安全妥善地符合法例要求。



上給供氣分喉銹蝕可引致氣體事故,因此,確保上給供氣分喉安全是我們的重點工作之一。我們不但鼓勵住宅用戶每18個月為上給供氣分喉安排至少一次定期安全檢查,更安排進行針對性的風險為本巡查計劃,以監察全港樓宇上給供氣分喉的狀況。我們樂見煤氣公可檢測到上給供氣分喉的狀況。

至於為新建屋用地提供的氣體風險評估及顧問工作,我們會加強員工對各類氣體裝置進行「量化風險評估」的培訓,提高他們這方面的能力和知識。同時也會有9 000個燃料缸需要覆檢。為滿足中項預計需求,我們已着手與其他政府部門聯繫,籌備在元朗增設一個覆檢工場的招標工作。



### Auto-LPG Quality Tests and Cylinder Revalidation

Monitoring of the quality of auto-LPG and weekly posting of sample test results on our website has continued, with the aim to ensure that the quality of LPG complies with the specified requirements. Besides, we have been closely monitoring the situation of auto-LPG cylinder revalidation. According to the Gas Safety (Gas Supply) Regulations, LPG cylinders must be tested and examined at least once every five years. There are more than 21 000 LPG vehicles in Hong Kong. The next revalidation peak will appear from 2015 to 2016. As such, we have been closely monitoring the revalidation service market to ensure that there are adequate well-equipped workshops to facilitate the trade to comply with the statutory requirements in a safe and smooth manner.

### **New Developments**

Riser safety is one of our top priorities, since riser corrosion can lead to incidents. We encourage households to arrange Regular Safety Inspections at least once every 18 months, and have a targeted risk-based inspection programme to address riser condition in buildings. We are happy to note that Towngas is conducting a pilot programme using technology to inspect risers without having to enter flats.

Under this programme, a device fitted with a video camera and gas detector is mounted onto a vertical metal frame affixed to the outer wall of a building near the riser. The device moves along the frame and takes close-up footage of the riser while simultaneously detecting any gas leakage, a method superior to mere visual inspection. The pilot is being conducted in two private residential

estates and is likely to be ready for rollout at other aging buildings next year. This will make riser inspection more effective and reliable and help alert building owners to gas leakage risks and the need for mitigating measures, thereby enhancing gas safety for the community.

With regard to our gas risk assessment and advisory work on new land for housing development, we shall step up staff training in QRA for different types of gas installations so as to enhance the team's capacity and knowledge. At the same time, demand for auto-LPG cylinder revalidation is set to surge in 2015/16 when the cyclical peak hits 9 000 cylinders. We have therefore begun liaising with other departments to invite tenders for a new revalidation workshop on a site in Yuen Long to satisfy this coming demand.



技術人員檢測車用石油氣燃料缸,以滿足有關覆檢的法例要求。 Technician examines an auto-LPG cylinder to comply with statutory testing and revalidation requirements.

**Profile** 

### 保障公眾安全 Safeguarding Public Safety



### 王立漢督察榮獲申訴專員嘉 許獎

氣體標準事務處機械督察王立漢 先生最近榮獲「2014年申訴專 員嘉許獎-公職人員獎」,表 揚他處理市民查詢和投訴的 出色表現。

他說:「我們必須細心聆聽,找出市民心中真正的問題,而且對市民和被投訴者雙方都要持平。」他更指出:「面對面溝通也很重要,最好是親自去到現場,看看真正發生了甚麼問題。」

王督察今次得獎,是由於他為投訴人與氣體供應公司進行調解的過程中,表現專業,同時秉持公正和積極的態度,最終找出雙方都樂於接受的解決方案。在幾個較突出的個案中,他持平地在投訴人及氣體供應公司之間進行溝通,找出問題的根源,最終不但將問題解決,還成功把投訴轉化為嘉許。

王督察認為今次得獎是對整個團隊的表揚,他的工作能夠發揮效力,全賴同事和上司的支持。



氣體安全督察王立漢先生(左二)表現專業,並秉持公正和積極態度,有效處理市民查詢和投訴,贏得獎項。 Gas safety inspector Wang Lap-hon (2nd from left) wins award for his professionalism, fairness and positive attitude in effectively handling enquiries and complaints from the community.

### Inspector Mr Wang Lap-hon Wins Ombudsman's Awards

Mr Wang Lap-hon, mechanical inspector with the Gas Standards Office, was recently honoured in the Ombudsman's Awards 2014 for Officers of Public Organisations for his excellent performance in handling enquiries and complaints from the community.

"One must listen carefully in order to identify the complainant's real issues, and be fair to both parties," Mr Wang says. "It is also important to meet face to face and go on-site to see what the real problem is," he adds.

He was recognised for his professionalism, fairness and positive attitude in mediating between the complainant and the gas supply company to eventually find a solution accepted by both parties. In several standout instances, he liaised impartially between a complainant and gas supply companies, identified and resolved the root cause of the problem, turning complaints into appreciation.

Mr Wang said the award was a recognition for his entire team, as his work would not have been possible without the support of his colleagues and supervisors.



### 車用石油氣品質高度透明

確保車用石油氣維持高品質,是我們支援石油氣車輛計劃的有效方法。為此,我們由2010年1月 起,已主動每周定期監察和化驗車用石油氣。

我們每星期會以電腦隨機抽出兩個各屬不同氣體公司的石油氣加氣站,抽取石油氣樣本送往 化驗所進行品質化驗。此外,我們也會每月從兩家不同氣體公司的青衣石油氣儲藏庫抽取樣 本化驗。這機制確保車用石油氣由上游至下游的品質,都受到恆常監察。

特寫 Profile

化驗結果每星期都會上載至機電工程署網頁,並附有公司名稱、加氣站位置及品質化驗分析詳情等。這制度 自推行以來,為本港車用石油氣品質帶來極高透明度,成功建立公眾信心。

### **Auto-LPG Quality Highly Transparent**



工作人員於石油氣加氣站定期抽取車用石油氣樣本,送往化 驗所進行檢測。

Taking auto-LPG samples regularly from LPG filling stations for laboratory testing.

Maintaining the high quality of auto-LPG is an effective way to support LPG vehicle scheme. Accordingly, we began to proactively conduct weekly monitoring and testing of auto-LPG since January 2010.

Every week, two LPG filling stations, each from a different gas company, are randomly selected by computer for auto-LPG sampling tests. Auto-LPG samples are taken from the stations and sent to laboratories for quality tests. Every month, auto-LPG samples from two gas companies' Tsing Yi terminal are also collected and tested. The mechanism ensures that the quality of both upstream and downstream auto-LPG is regularly monitored.

Weekly test results are posted on the EMSD website,

complete with company names, station locations and detailed quality analysis results. The system has achieved a high level of transparency that maintains public confidence in the city's auto-LPG quality.

### 機械安全

一般法例部於2013/14年度推出了三項 新措施,配合《升降機及自動梯條例》 (第618章)的實施工作,進一步提升了 升降機及自動梯的安全水平。

### 升降機及自動梯安全諮詢委員會

首先,我們於2013年7月成立升降機及 自動梯安全諮詢委員會,成員包括專業 團體、升降機及自動梯業界、培訓機 構、物業管理公司、區議會及市民代 表,目的是就《升降機及自動梯條例》 的行政和執行事宜向機電工程署署長提 供意見。自成立以來,委員會已成為一 個讓我們與業界及主要持份者同心協 作、搜集不同意見與建立共識的平台。

#### 改善承辦商表現評級制度

第二項措施,是我們改善了2009年推出的註冊升降機及自動梯承辦商表現評級制度。新評級制度反映了註冊升降機及自動梯承辦商的安全表現和服務質素,並特別着重承辦商的工作及服務是否符合法例與實務守則及國際標準的要求。

我們每季都為承辦商進行評級,表現優秀者會獲頒一顆綠色「安全之星」,及最多五顆藍色「質素之星」,而評級結果會在機電工程署網站公布。改良後的評級制度不但高度透明,提供大量最新資訊,還可激勵註冊承辦商採用更為安全及可持續的質素為本營商手法提供服務,造福市民。

### 「負責人天地」

第三項措施,是在機電工程署網站成立 一個專為升降機及自動梯擁有人、管 公司及其員工而設的「負責人天地」, 目的是提供實用的管理工具及資訊,讓 負責人能更妥善地履行《升降機及自動 梯條例》訂明的法定責任。負責人現 於「負責人天地」隨時閱覽標準合約 於「負責人天地」隨時閱覽標準合約 於所場地升降機保養價格數據、註果、 及時場地升降機及自動梯承辦商表現評級結果、各 種指引、短片及小冊子,以能更有效地 挑選承辦商及監察他們的表現。



近期引入香港的傾斜式升降機,安裝於愉景灣,是新類型的升降機。 An "inclined" lift in Discovery Bay, a new lift type recently introduced into Hong Kong.



升降機及自動梯安全諮詢委員會,定期開會討論如何支援《升降機及自動梯條例》的行政和執行事宜。
The Lift and Escalator Safety Advisory Committee meets regularly to discuss ways to support the administration and enforcement of the Lifts and Escalators Ordinance.

#### **MECHANICAL SAFETY**

The General Legislation Division implemented three initiatives in 2013/14 to complement the Lifts and Escalators Ordinance (Cap 618) and take lift and escalator safety to a new level.

### Lift and Escalator Safety Advisory Committee

First, we set up the Lift and Escalator Safety Advisory Committee in July 2013. With representatives from professional bodies, the lift and escalator trade, training institutions, property management companies, District Councils and the general community, its purpose is to advise the Director of Electrical and Mechanical Services on matters relating to the administration and enforcement of the Lifts and Escalators Ordinance. As such, it has become a key platform to engage with the trade and key stakeholders, solicit different viewpoints and build consensus.

### Revamped Contractors' Performance Rating System

Second, we revamped the Registered Lift and Escalator Contractors' Performance Rating (CPR) system, first launched in 2009. The new system reflects the performance of registered lift and escalator contractors in terms of both safety and service quality. It specifically considers whether a contractor's work and services comply with requirements stipulated in the Ordinance and the Code of Practice and international standards.

Contractors are rated on a quarterly basis and those with high ratings are awarded a green Safety Star and up to five blue Quality Stars, with results publicised on the EMSD website. Highly transparent, informative and up-to-date, the revamped CPR system will encourage registered contractors to adopt safer and sustainable quality-focused trade practices for the benefit of the general public.

### Responsible Persons' Corner

The third measure was setting up a Responsible Persons' (RPs) Corner on the EMSD website for lift owners, management companies and their staff. It provides useful tools and information to facilitate RPs to better discharge their statutory duties under the Ordinance. RPs may now easily access online proforma contracts, maintenance price information of lifts at government premises, CPR assessment results, guidelines, videos and pamphlets to help them select contractors and monitor their performance more effectively.

#### 提升公眾信心

與此同時,全港5 000多名升降機及自動梯工程人員在一年過渡期內順利完成註冊手續,而以業界、負責人及市民為對象的宣傳活動亦持續進行,相信可進一步提升公眾對升降機及自動梯安全的信心。我們也不斷鼓勵升降機負責人和

擁有人為老化的升降機進行優化工程, 而政府目前也正為其現有的升降機推行 優化計劃,預計可於三至五年內完成。

### 昂坪360及中環海濱摩天輪

我們正與昂坪360合作,在現行目視檢查的基礎上,引進新技術以加強纜車系

統牽引纜的檢查方法。我們正測試一套 新的「牽引纜自動檢查系統」,利用360 度攝影機配合電腦軟件監察牽引纜的狀 況。新系統全面推行後,牽引纜檢查工 作的準確度及效率將大大提高。



### 新委員會肩負重任

政府於2013年7月成立升降機及自動梯安全諮詢委員會,由潘樂陶先生出任主席,共有 17位成員,分別代表業界、升降機及自動梯負責人、學識淵博的專業人士、培訓機構、 機電工程署及市民。

委員會就《升降機及自動梯條例》的行政和執行事宜向機電工程署提供意見,下設兩個工作小組,分別以負責人及業界事宜為工作重點。委員會也是一個讓持份者交流意見和建立共識的平台。

潘主席指出:「委員的背景多元化,代表不同利益,這對委員會其實有積極意義。」而「要建立共識,我們必須讓每個委員暢所欲言,容許廣闊光譜的各種不同意見都獲得充分表達,再以大眾利益為依歸,尋找共同立場,化解彼此矛盾,為社會謀求更大利益。」

特寫 Profile

升降機及自動梯安全諮詢委員會成立以來,已就多項事務提供意見,例如改善承辦商表現評級制度、公布政府樓宇的升降機保養價格,以及提醒各個持份者其法定責任的宣傳工作。委員會兩個工作小組會繼續專注的事務,包括持份者宣傳教育、支援負責人挑選和管理承辦商、就業界面對的問題進行調查及檢討、關注業內職安健情況及升降機與自動梯保養的技術等。

### **New Committee, Important Work**

The Government set up the new Lift and Escalator Safety Advisory Committee (LESAC) in July 2013. Chaired by Mr Otto Poon, it has 17 members, representing the trade, RPs, learned professionals, training organisations, EMSD and the public.

LESAC advises EMSD on matters relating to the administration and enforcement of the Lifts and Escalators Ordinance. It has two working groups, focusing on issues relating to RPs and the Trade respectively. It also functions as a platform for stakeholders to exchange views and foster consensus.

"Diverse membership with different backgrounds and from different interest groups is essential for LESAC to be constructive and meaningful," says Mr Poon. "To reach consensus, all members should be given the opportunity to speak their mind so that a wide spectrum of opinions is fully expressed. Then it would be necessary to identify common grounds and conciliate the differences in the interest of achieving the greater good for the community."

Since its establishment, LESAC has provided input on a wide range of matters, such as the refinement of the Contractors' Performance Rating Scheme, the release of lift maintenance prices for government buildings, and publicity of statutory duties of various stakeholders. Its two working groups will continue to focus on issues such as educating stakeholders, supporting RPs on the selection and management of contractors, various surveys and reviews on issues faced by the trade, occupational health and safety, and maintenance technologies.

### Reinforcing Public Confidence

Meanwhile, the smooth registration of the 5 000-plus lift and escalator workers in Hong Kong within the one-year transition period, together with on-going publicity programmes for the trade, RPs and the general public, is expected to further raise public confidence in lift and escalator safety. We have also been encouraging RPs and lift owners to modernise aging lifts, as the Government is now implementing a modernisation programme for its lifts that is expected to be completed in three to five years.

### NP360 and Hong Kong Observation Wheel

In cooperation with Ngong Ping 360, we are working to introduce new technology to enhance the cable car system's haul rope examination process and improve upon current visual inspections. We are now testing a new Automatic Haul Rope Examination System, which uses 360-degree cameras and software to monitor the condition of haul ropes. When fully operational, the system will greatly enhance the accuracy and efficiency of the haul rope inspection process.



(上下兩圖)機電工程署人員測試昂坪360的新「牽引纜自動檢查系統」: 系統會使牽引纜檢查工作更準確、更有效率。 (Both photos) EMSD officers testing the new Automatic Haul Rope Examination System in Ngong Ping 360. The system will make the haul rope inspection process more accurate and efficient.







(上下兩圖)機電工程署與民政事務總署合辦有關《升降機及自動梯條例》及如何安全使用升降機與自動梯的簡介會,供全港各區根據該條例為「負責人」的人士參加。(Both photos) EMSD co-organised briefings with the Home Affairs Department on the Lifts and Escalators Ordinance and safe use of lifts and escalators for RPs in various districts in Hong Kong.

中環海濱摩天輪項目也進展良好。摩天輪位於中環海旁附近,高60米,有42個車廂,每個車廂可載八人,預計於2014年10月啟用。我們已審核摩天輪的設計以確保安全,並會先進行各項檢查和測試,然後才向摩天輪發出使用批准。摩天輪上可飽覽維港美景,勢將成為本港的新旅遊景點。

#### 提升車輛維修服務水平

我們現有兩個提升車輛維修服務水平的 自願性計劃。其一是「車輛維修技工自 願註冊計劃」,該計劃在2007年推出, 現已註冊的車輛維修技工約有6 900 名,佔總行業人數約74%。其二是「車 輛維修工場約章計劃」,在2013年年 初推出,至今已有約400家工場簽署約 章,承諾遵守一套優良實務守則以經營 業務。

我們的下一步工作,是提高車輛維修技 工和維修工場對有關兩個計劃的參與 率,進一步提升車輛維修服務水平。就 維修工場而言,我們會修訂實務守則, 以更佳反映大、中、小型工場的運作情 況。車輛維修技術諮詢委員會會就此研 究各種可行改善方案。若得到業界支 持,我們會考慮提出立法建議,把車輛 維修技工及維修工場同時納入規管,以 提升車輛維修服務水平。

### 未來的升降機及自動梯安全工作

我們為促進升降機及自動梯安全而進行的工作雖已見成效,但仍要繼續努力,我們未來的工作重點,是教育和協助升降機負責人履行其法定責任。為方便升降機負責人取得更多市場資訊以在挑選承辦商時可作參考,我們已委託進行實格。我們亦正研究採用遙距狀態監測技術對升降機進行監察的可行性。此外評估方法,俾能對註冊承辦商的表現作出更準確和全面的評估。



機電工程署就《升降機及自動梯條例》中有關「負責人」的責任問題,為屋宇設備運行及維修行政人員學會會員作簡介會。

EMSD held a briefing for the Building Services Operation and Maintenance Executives Society members on RPs' duties under the Lifts and Escalators Ordinance.







「車輛維修工場約章」旗幟,鼓勵車主使用已參加約章的維修車場,會有較佳維修品質和服務。

A banner urging car owners to use maintenance workshops in the Vehicle Maintenance Workshop Charter, for better quality and service.

The Hong Kong Observation Wheel project is also making good progress. The system, 60 metres high with 42 eight-passenger cabins, is scheduled to open on a site near the Central waterfront in October 2014. We have vetted the design to ensure safety. We shall conduct inspections and tests before granting approval for its opening. Offering spectacular harbour views, it is expected to become a new attraction in Hong Kong.

# **Enhancing Vehicle Maintenance Service Standards**

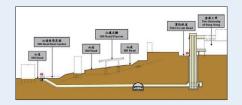
We currently operate two voluntary schemes to enhance vehicle maintenance service standards. First is the Voluntary Registration Scheme for Vehicle Mechanics. Since its launch in 2007, some 6 900 vehicle mechanics are now registered, or about 74% of

the total in the trade. Second is the Vehicle Maintenance Workshop Charter Scheme, which was launched in early 2013. About 400 workshops have already subscribed to the Charter to abide by a set of good trade practice.

Our next step is to increase the participation rate for both mechanics and maintenance workshops in order to enhance vehicle maintenance service standards. For maintenance workshops, we shall review the Practice Guidelines to better reflect the operation of large, medium and small workshops. The Vehicle Maintenance Technical Advisory Committee will be looking at various improvement options. Subject to support from the trade, we shall also consider legislative proposals to regulate both vehicle mechanics and maintenance workshops in parallel to raise their service standards.

### Coming Work on Lift and Escalator Safety

Despite what has been achieved to enhance lift and escalator safety, much more can still be done. The focus of our future work is on educating and assisting RPs in discharging their statutory obligations. With a view to obtaining more market information for reference by lift RPs when selecting contractors, we have commissioned an independent survey to look at lift maintenance contract prices in the private sector. We are also exploring the use of remote condition monitoring for lifts. The performance assessment scheme forming the basis of the CPR will also be reviewed to give a better and comprehensive assessment of registered contractors' performance.



(上下兩圖) 我們為港島西綫的安全系統及設施進行審核和測試,在緊迫的時間內如期完成測試工作。

(Both photos) We completed the vetting and testing of the safety-related systems of the West Island Line on time against a tight schedule.

### 鐵路安全

### 事故持續減少

2013年因設備故障和員工行為導致的 鐵路事故持續減少,較2012年下降 6%。為確保鐵路安全,鐵路科會竭盡 所能採取一切措施,密切監察鐵路事 故的趨勢,並與香港鐵路有限公司(港 鐵)不斷檢討有關情況,務求持續改進 鐵路安全。

#### 西港島綫安全測試

年內另一成就,是我們在緊迫的時間內,如期為西港島綫的安全系統及設施,進行各項審核和測試。我們的任務,是與其他相關政府部門聯繫,監察新鐵路綫的安全及保安事宜。我們會繼續進行各種安全檢查,待完全滿意後,才會確認新鐵路綫可為乘客提供安全服務。西港島綫將於2014年年底或2015年年初啟用,將會是香港鐵路發展的一個重要里程碑。

與此同時,我門正全速審核其他新鐵路 綫各個安全系統的相關文件,當中包括 南港島綫(東段)、觀塘綫延綫、廣深 港高速鐵路香港段和沙中綫。

### 大型緊急事故演習

港鐵應我們的建議,於2013年11月30日凌晨在旺角站舉行緊急事故演習,約有1700人參與,包括港鐵員工、自願參與的市民及來自各個政府部門的觀察員。演習模擬旺角站發生火警時的說是大響時的鐵路綫上最繁忙的轉車站,是因為當的鐵路綫上最繁忙的轉車站,是他科技,以不斷監察站內每個特定地點的乘客流量及計算疏散時間。演習所得的量化數據,證明旺角站的乘客疏散程序令人滿意。

這是港鐵首次舉行如此大型的緊急事故 演習,類似演習日後可能在其他港鐵站 進行。



港鐵公司於2013年11月於旺角站舉行大型緊急事故演習,以測試該站的緊急疏散程序。 MTRCL held a large-scale emergency drill at Mong Kok station in November 2013 to test the evacuation procedure of the station.



港鐵公司管理層向參與旺角站大型緊事故演習的人士,簡介有關安排。 MTRCL management briefed participants of the large-scale emergency drill at Mong Kok Station about arrangements.

#### **RAILWAY SAFETY**

### **Incidents Continued to Decrease**

The number of railway incidents caused by equipment failure and staff behaviour continued to decrease during the year, falling by 6% in 2013 compared with the figure in 2012. To ensure railway safety, the Railways Branch will make every endeavour to closely monitor the incident trend and review the situation with the MTR Corporation Limited (MTRCL) for continuous improvements.

### **West Island Line Safety Tests**

Another achievement was our vetting and testing of the safety-related systems and facilities of the West Island Line, working to a tight schedule. Our role is to coordinate with other relevant government departments in overseeing the safety and security aspects of the new line. We shall continue to perform various safety inspections before certifying it as safe for passenger service. The opening of the new line by the end of 2014 or early 2015 will be a key milestone in Hong Kong's railway development.

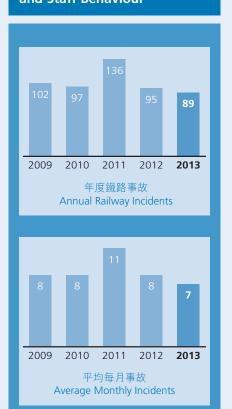
Meanwhile, vetting of safety-related submissions for other new railway lines, including the South Island Line (East), Kwun Tong Line Extension, Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link and Shatinto-Central Link, are in full swing.

### **Large-Scale Emergency Drill**

Per our suggestion, the MTRCL conducted an emergency drill at Mong Kok Station in the early hours of 30 November 2013, involving about 1 700 MTRCL staff, public volunteers and observers from government departments. The drill simulated a fire evacuation in Mong Kok Station, the busiest interchange station on the oldest MTR urban line. In the drill, RFID and other technologies were deployed



**Caused by Equipment Failure** and Staff Behaviour



特寫

**Profile** 

### 保障公眾安全 Safeguarding Public Safety

#### 事故調查

作為安全規管者,我們對所有鐵路事故 都十分重視,並會盡全力調查事故的根 本成因,提出改善及預防建議,同時監 察港鐵切實遵行有關建議,防止同類事 故再次發生。

#### 陸續更換信號系統

展望將來,港鐵的一項重大工作,是更換及優化市區綫、東涌綫、機場快綫及迪士尼綫現有的鐵路信號系統,讓載客量幾近飽和的鐵路網能增加列車班次。港鐵建議將現有信號系統更換為以先進通訊科技為基礎的列車操控信號系統。我們已詳細評估有關建議,並支持此項計劃。

荃灣綫將會是第一條進行信號系統更換工程的鐵路綫,有關工程將按計劃於2018年完成。其他現有鐵路綫的信號系統全面更換工程則需較長時間才能完成,但長遠而言必可大大提高本港鐵路網的載客量和效率。



### 旺角站緊急事故演習

為測試旺角站的疏散程序,港 鐵於2013年11月30日凌晨 於該站舉行了一次演習。是 次演習由機電工程署建議進

行,並督導籌劃過程,是同類演習規模最大的,約有 1700人參與,包括港鐵員工、自願參與的市民及來 自消防處、香港警務處和機電工程署的觀察員。

演習模擬觀塘綫一列由太子站開往旺角站的列車在途中突然起火,目的是測試旺角站疏散乘客的程序。演習過程使用了無線射頻識別技術和其他科技,以不斷監察站內每個特定地點的乘客流量及計算疏散時間。 旺角站是全港鐵路網最繁忙的轉車站之一,演習結果評價正面,證明旺角站的疏散程序令人滿意。

我們已向港鐵建議日後在其他地鐵站進行類似演習。



參加2013年11月緊急事故演習的,共有1 700多名港鐵公司員工、自願參與的市民和來自各個政府部門的觀察員。 More than 1 700 MTRCL staff, public volunteers and observers from government departments took part in the emergency drill in November 2013.

### **Mong Kok Station Emergency Drill**

To test the Mong Kok Station evacuation procedure, a drill was held in the early hours of 30 November 2013. EMSD suggested the drill and steered its planning. The drill was one of the largest of its kind, involving about 1 700 MTR staff and public volunteers, as well as observers from the Fire Services Department, Hong Kong Police Force and Electrical and Mechanical Services Department.

The drill simulated a fire breaking out on board a Kwun Tong Line train running from Prince Edward Station to Mong Kok Station, putting the evacuation procedure to the test. RFID and other technologies were used in the drill to continuously monitor the flow of passengers at specific locations and measure the evacuation time. The results were positive and proved that the evacuation procedures for the Mong Kok Station, one of the busiest interchange stations, are satisfactory.

We have recommended to MTRCL to conduct similar emergency drills at other stations in future.







to continuously monitor the flow of passengers at specific locations and measure the evacuation time. The results verified in quantitative terms that the evacuation procedure is satisfactory.

This was the first emergency drill held on such a large scale, and similar drills at other stations may follow.

### **Incident Investigation**

As the safety regulator, we take all railway incidents very seriously. We spare no effort in investigating root causes, recommending remedial and preventive measures and monitoring MTRCL's compliance to avoid similar incidents recurring.

### Future Replacement of Signalling System

Looking ahead, a major task for MTRCL will be replacing and upgrading the existing railway signalling systems in the Urban Lines, Tung Chung Line, Airport Express Line and Disney Resort Line to further increase train frequency as the rail network approaches the limit of its capacity. We have carried out a detailed assessment of its proposal to replace the existing signalling systems with a state-of-the-art communications-based train control signalling system, and we support the plan.

The replacement exercise will start on the Tsuen Wan Line, with completion of works on that line scheduled for 2018. Full replacement of the entire signalling system on other existing lines will take longer to complete, but will greatly boost our railway network's capacity and efficiency in the long run.

# 推廣能源效益及節能 Promoting Energy Efficiency and Conservation



# 推廣能源效益及節能

# **Promoting Energy Efficiency and Conservation**



我們於2014年推出「室內温度節能約章」優 化版。

Launching an improved version of the Energy Saving Charter on Indoor Temperature in 2014



「不要鎢絲燈泡節能約章」宣傳海報。 Poster promoting the No Incandescent Light Bulbs Charter.

## 室內溫度節能約章

能源效益事務處去年的一項重要成就, 是推出兩個節能約章,分別針對室內溫 度和鎢絲燈泡。

我們繼2012年夏天首次推出「室內溫度節能約章」後,已於2013及2014年先後推出約章的優化版。鑑於商業樓宇的空調耗用大量電力,也是溫室氣體排放的主要來源,我們以約章形式鼓勵發展商、物業管理公司、商鋪和辦公室大樓作出承諾,在6月至9月的夏季月份,將室內溫度維持在攝氏24至26度。「室內溫度節能約章2013」獲得超過120個商場、190幢辦公大樓、630家商鋪及600家辦公室簽署,而剛於2014年5月推出的「室內溫度節能約章2014」,參與情況更見踴躍。

### 「不要鎢絲燈泡」節能約章

至於2013年6月推出的「不要鎢絲燈泡」節能約章,目的是淘汰極不節能的鎢絲燈泡。我們鼓勵供應商和零售商參與,簽署約章者均須承諾停止補充指定的鎢絲燈泡,並由2013年12月底開始,完全停售該指定的鎢絲燈泡。業界反應非常正面,我們預期可順利逐步淘汰市場上的鎢絲燈泡。

## 安裝電動車中速充電設施

為鼓勵市民更多使用電動車,政府近年 大力發展方便電動車充電的基礎設施。 我們為支援政府這項政策,不但在各政府停車場安裝充電設施,也提供指引, 方便發展商和管理公司在私人停車場安 裝充電設施。行政長官於2014年的《施 政綱領》中提出年內要設立100個中速 充電器,我們已如期完成有關工作。中 速充電器較標準充電器可縮短充電時間 約達六成,用家倍感方便。

# INDOOR TEMPERATURE CHARTER

The launch of two energy efficiency charters was a key achievement of the Energy Efficiency Office in the past year. One focused on indoor temperature, while the other targeted incandescent light bulbs (ILBs).

Improved versions of the Energy Saving Charter on Indoor Temperature, which was introduced in the summer of 2012, were launched in 2013 and 2014. The Charter urges developers, property management companies, shops and offices to pledge to maintain an average indoor temperature between 24 and 26 degrees Celsius during the summer months from June to September, as airconditioning in commercial premises consumes considerable energy and is a source of greenhouse gas emissions.

The 2013 Charter saw more than 120 shopping malls, 190 office buildings, 630 shops and 600 offices signing up, with the 2014 Charter launched this past May attracting even higher participation.

# NO INCANDESCENT LIGHT BULBS CHARTER

The other charter, introduced in June 2013, is the Energy Saving Charter on No Incandescent Light Bulbs (otherwise known as the "No ILB Charter"). It aims to phase out ILBs, which are highly energy inefficient. Suppliers and retailers are urged to take part, and signatories pledge not to replenish the targeted ILB stocks nor sell the targeted ILBs from the end of December 2013. The response from the trade has been positive and we expect a smooth phasing out of ILBs from the market.

# MEDIUM-SPEED EV CHARGING POINTS INSTALLED

As part of the initiative to encourage the community to use more electric vehicles (EVs), we are supporting the Government's infrastructure-led approach by installing more charging points in government car parks while also facilitating developers and property management companies to install charging points in private car parks. In line with the Chief Executive's Policy Agenda 2014, we have already completed this year's goal of installing 100 medium-speed charging points. These can reduce charging time by up to 60% compared with standard charging points, offering added convenience to users.



中環某政府停車場的中速充電器。 A medium-speed charging point in a government car park in Central.



全港各政府停車場已安裝了約100個中速充電器,它們較標準充電器可縮短充電時間約達六成。

About 100 medium-speed charging points are now available in government car parks. They can reduce charging time by up to 60% compared with standard charging points.

# 優化強制性能源效益標籤計劃

即將進行的一項重要工作,是優化「強制性能源效益標籤計劃」的能源效益評級標準。該計劃自2009年11月開始全面實施以來一直沿用現行的評級標準。我們相信現在是提升冷氣機、雪櫃和洗衣機能效評級標準的適當時機。這三類電器合共耗用全港家居約一半總用電量。提升能效評級標準將可改善這三類類電器的能效表現。

我們於2014年1月就評級優化建議與業界展開諮詢工作,並將成立一個包含業界及消費者委員會代表的工作小組,共同製訂詳細安排及修訂現行的《實務守則》。只要業界及其他持份者能達成共識,我們預計可於2014年年底將《實務守則》修訂版刊憲,然後開始全面宣傳新能源效益評級標準,好讓公眾在新標準正式實施前已知悉有關詳情。

推行建議的新能源效益評級標準,預計每年可節省約3億千瓦小時電力,並可節省相應數目的電費。「強制性能源效益標籤計劃」第一及第二期自實施以來已節省大量電力,新標準將對環境及消費者帶來更大裨益。

### 區域供冷系統投入服務

作為啟德發展區區域供冷系統的項目經理,能源效益事務處欣然報告,該項目第一期和第二期均已如期完成,並已開始為2013年6月啟用的郵輪碼頭及位於啟晴邨與德朗邨的晴朗商場供應冷水。透過第三期(A組)工程,2016年會有一座政府大樓、兩家學校及香港兒科會院與供冷系統連接,有關工程目前進展良好。第三期工程預計於2022年完成,屆時整個區域供冷系統將全面投入服務。



有關能效表現的實驗室測試正進行中。 Laboratory test of energy performance in progress.



我們就空調機、雪櫃和洗衣機的建議新能效評級標準安排了實驗室測試,目的是提高這三類產品在「強制性能源效益標籤計劃」的能效表現標準。 We have arranged laboratory tests on proposed new grading standards of air-conditioners, refrigerators and washing machines, with a view to raising their energy efficiency performance under the Mandatory Energy Efficiency Labelling Scheme.



啟德發展區區域供冷系統第一和第二期工程已如期完成,而第三期(A組)工程也進展良好。 Phases I and II of the Kai Tak District Cooling System were completed on time and Phase III (Package A) works are making good progress.

# MEELS ENERGY LABELS UPGRADE

A major initiative in the near future is the upgrading of energy efficiency grading standards under the Mandatory Energy Efficiency Labelling Scheme (MEELS). The current grading standards have been in use ever since the MEELS was fully implemented in November 2009. We believe now is an opportune time to raise the grading standards of air-conditioners, refrigerators and washing machines, which together account for some 50% of domestic electricity consumption in Hong Kong, for better energy performance.

Consultation with the trade about our upgrading proposal commenced in January 2014, and a task force comprising representatives from trade associations and the Consumer Council will be set up to work out detailed arrangements and revise the Code of Practice. Subject to consensus with the trade and other stakeholders, it is planned that the revised Code of Practice will be gazetted before the end of 2014, after which a comprehensive publicity campaign will be rolled out to inform the public about the new energy efficiency grading standards well before they are launched in the market.

The upgrading proposal is expected to generate some 300 million kWh electricity savings every year, with corresponding electricity bill savings. This will be of major benefit to the environment and to consumers, adding to the electricity savings already achieved under Phases 1 and 2 of MEELS.

# DISTRICT COOLING SYSTEM OPERATIONAL

As project manager of the District Cooling System (DCS) at the Kai Tak Development, the Energy Efficiency Office is happy to report the timely completion of Phase I and Phase II works. Provision of chilled water supply has begun for the Cruise Terminal, which opened as scheduled in June 2013, as well as the Ching Long Shopping Centre in Kai Ching Estate and Tak Long Estate. Phase III (Package A) works, which will see a government building, two schools and the Hong Kong Children's Hospital connected to the system by 2016, are making good progress. The DCS is scheduled to be fully operational around 2022 when the entire Phase III is due to be completed.



隧道鑽挖機是區域供冷系統工程的重要機 器。

The tunnel boring machine is a key equipment to the District Cooling System works.



建築物完成能源審核後,須在主要入口處展 示有效的能源審核表格。

A valid Energy Audit Form must be displayed at the main entrance of a building after completion of an energy audit.

啟德發展區區域供冷系統是全港首個同類型的供冷系統,由兩個中央製冷機組及一個覆蓋範圍極廣的水管網絡組成,作用是向區內的樓宇供應空調用的。跟獨立的水冷空調系統比較,區域供冷系統可節省多至20%的能源;更多地獨立的氣冷空調系統比較,節能更多。35%。個別大廈也無需設置本身的供冷機房。整個區域供冷系統落成後,預料每年可節省多達8 500萬千瓦小時電力,相等於每年減少59 500噸二氧化碳排放。

# 提升《建築物能源效益守則》

《建築物能源效益條例》(第610章) 自 2012年9月21日全面實施以來,已取 得相當進展。現時所有新建築物及進 行「主要裝修工程」的現有建築物的屋 宇裝備裝置,都必須符合《建築物能源 效益守則》規定的設計標準,而現有商 業建築物及綜合用途建築物也必須根據《能源審核守則》的規定,每十年進行一次能源審核。如發現任何人士不遵守上述要求,我們將發出敦促改善通知書,有關人士如未能採取適當的補救措施,可能會被檢控。

為確保《建築物能源效益守則》能與時並進,能源效益事務處會定期檢討守則的設計標準。有關照明功率密度的檢討已經完成,而守則內其他設計標準的檢討工作會在2015年完成。

### 前瞻:不斷改善

未來工作的重點,是提升各個現有節能計劃及實務守則的標準,以促使業界持續改善能效表現。我們會進行充分前期諮詢,確保新的標準對業界可行、對公眾有利、對環境也有正面影響。

The DCS at Kai Tak Development is the first of its kind in Hong Kong, consisting of two centralised chiller plants and an extensive network of water pipes to distribute chilled water to buildings in the district for air-conditioning cooling. DCS can achieve energy savings of up to 20% when compared to standalone water-cooled systems and up to 35% when compared to stand-alone air-cooled systems. It also eliminates the need for individual buildings to install their own chiller plants. Upon completion, the DCS is estimated to achieve annual electricity savings of up to 85 million kWh, which is the equivalent of a reduction of 59 500 tonnes carbon dioxide emission per annum.

# BUILDING ENERGY CODE UPGRADES

Considerable progress has been made since the Buildings Energy Efficiency Ordinance (Cap 610) came into full operation on 21 September 2012. Building services installations for new buildings and "major retrofitting works" in existing buildings must now comply with the design standards of the Building Energy Code (BEC), while existing commercial buildings and composite buildings must also carry out energy audits in accordance with the Energy Audit Code once every ten years. Those found not complying are issued improvement notices, and may face prosecution if they fail to take appropriate remedial measures.

To ensure that the BEC is up to date, the Energy Efficiency Office will review the BEC design standards regularly. The review of Lighting Power Density standards has been completed and that for other BEC design standards will be completed in 2015.

# GOING FORWARD: CONTINUOUS IMPROVEMENT

A key focus going forward is to upgrade various standards in existing schemes and codes of practice, so that the trade will continue to improve its energy efficiency performance. We shall ensure that adequate consultation takes place early in the process, so that the new standards are feasible for the trade, beneficial to the public, and have a positive impact on the environment.



區域供冷系統是本港最先驅的工程項目之一,很多機構對該項目都深感興趣。 The District Cooling System is one of the pioneering works in Hong Kong, attracting interest from many organisations.



# 朗豪坊參與「室內溫度節能約章」

朗豪坊是旺角一個大型辦公大樓兼商場,由鷹君物業管理有限公司管理。自「室內溫度節能約章」 於2012年推出以來,朗豪坊每年都有參與,鼎力支持這項活動。

朗豪坊總經理趙志堅先生談到朗豪坊在「室內溫度節能約章2013」活動中取得佳績,在6月至9月期間成功把室內溫度維持在約章指定的攝氏24至26度,是由於有周詳的事前計劃、良好的支援及與租戶保持緊密合作。

特寫 Profile

他說:「我們很高興見到這麼多辦公室及商鋪租戶參與約章,並維持約章要求的室內溫度。我們的目標,是 響應政府呼籲,協助每個人共同建立節能習慣,而這也是大勢所趨。」

為籌備參加約章活動,趙先生於2013年年初成立工作小組,向所有辦公室和商鋪租戶發通告,介紹約章活動對環保方面的好處,邀請租戶參與,其後更派職員造訪個別租戶跟進。管業公司在整個活動過程中也對參與約章的租戶提供各種支援,比如特別製作了一批塑料展示板,讓參與租戶在其單位內展示約章標貼,以作宣傳及表揚。此外,管業公司更派技術人員每星期到租戶單位協助量度溫度兩次,並為辦公大樓和商場的公共地方定期量度室內溫度。活動完成後,管業公司更發出嘉許信,答謝參與租戶的支持。

超先生對朗豪坊租戶的高參與率特別感到自豪。在2013年,有18.3%的辦公室租戶和22.2%的商鋪租戶參與約章;在2014年,參與約章的比率更分別上升至22.5%及26.9%。朗豪坊在2012及2013年為期四個月的約章活動期間,共節省了610 000千瓦小時電力,估計於2014年約章活動結束時,也會創出節能佳績。

# **Langham Place Joins Indoor Temperature Charter**

Langham Place, a major office and retail complex in Mong Kok managed by The Great Eagle Properties Management Co Ltd, is a staunch supporter of the Indoor Temperature Charter and has been participating in the annual event since its launch in 2012.

Reflecting on Langham Place's participation in the 2013 Charter, Mr David Chiu, General Manager – Langham Place, attributes its good results to planning, a supportive environment and working closely with tenants to achieve the goal of maintaining indoor temperature at 24 to 26 degrees Celsius during June to September.

"We are glad to see so many office and retail tenants join the Charter and maintain their indoor temperature as pledged," he said. "Our aim is to help each other build an energy efficiency habit, as promoted by Government, which is the macro trend for everyone in due course."

Mr Chiu set up a Charter taskforce in early 2013. It sent circulars to all office and retail tenants to explain the Charter's environmental benefits and solicit support, following this up with visits to individual tenants. Participating tenants were well supported throughout the exercise. For example, each participating retailer received a special acrylic display stand, featuring the Charter logo, on which to recognise and publicise its efforts. Indoor temperature in participants' offices or shops was measured twice a week, with help from the management company's technical staff, while that in common areas was also monitored regularly. Appreciation letters were sent to all participants after the event.

Mr Chiu is particularly proud of Langham Place's high participation rate. In 2013, 18.3% of office tenants and 22.2% of retail tenants joined; in 2014 the rate climbed to 22.5% and 26.9% respectively. The development saved a total of 610 000 kWh of electricity during the four-month exercise in 2012 and 2013, with good results also expected at the close of the 2014 period.



特寫 Profile



我們於2013年10月舉行與本地傳媒周年聚會,高層管理人員並陪同25位記者和編輯參觀北廠。 Our senior management took 25 journalists and editors from the local media on a tour of the North Plant during our annual media gathering in October 2013.

## 傳媒參觀區域供冷系統北廠房

我們於2013年10月7日,即機電署高層與傳媒的年度聚會中,招待傳媒參觀區域供冷系統的北廠房。這也是 部門傳媒關係活動的一部分。當天聚會的主題是能源效益,共有25位來自各大報章、電視台和電台的記者與 編輯出席。

區域供冷系統北廠房位於九龍灣機電工程署總部大樓側,是系統兩個中央製冷機組之一。機電署高層管理團隊當日均在場介紹區域供冷系統的技術細節及對社會帶來的節能效益。傳媒對廠房的先進設施和項目的環保價值,都留下深刻印象,其後並作出不少正面報道。

# **Journalists Visit District Cooling System North Plant**

Journalists visited the newly completed North Plant of the District Cooling System (DCS) in Kai Tak Development on 7 October 2013, during the annual media gathering with EMSD senior management, which is part of our media relations programme. The theme of the gathering was energy efficiency. A total of 25 journalists and editors from major dailies, TV and radio stations attended the site tour.

The North Plant, adjacent to the EMSD Headquarters in Kowloon Bay, is one of two centralised chiller plants in the DCS system. Members of the EMSD senior management team were on hand to provide technical explanations and outline the energy-saving benefits that DCS offers to the community. The media were impressed with the state-of-the-art facilities at the plant and the environmental benefits of the project. The event generated considerable positive coverage.



# 提高公眾安全及節能意識 Raising Public Awareness of Safety and Energy Conservation

# 提高公眾安全及節能意識

# Raising Public Awareness of Safety and Energy Conservation

我們以雙管齊下的方式,積極推動業界 和市民參與,以提高本港的機電安全及 能源效益意識。除了採用網上及其他聯 繫渠道外,我們也重視與持份者面對面 直接交流,以取得最大成效。

# 推動業界參與

多年來,我們都主動透過多種不同的活動,與受規管的業界及其他持份者保持滿通,以協助他們符合法例要求,並採納最佳的作業方法。我們推動業界總與的方式,包括成立委員會和工作小以與的方式,包括成立委員會和工作小以及舉辦研會和會議等。我們作為規一,以便掌握市場實況並了解各種可能對機電安全具潛在影響的趨勢。

# 「機電安全及能源效益」2014研討會

「機電安全及能源效益」2014研討會於 1月20及21日假香港科學園舉行,來自 本地及海外的著名講者,在會上就電氣、氣體、機械及鐵路安全與能源效益等課題進行了熱烈研討。2014年的研討會由機電工程署與香港工程師學會合辦,吸引了約350位本港、內地及海外專業人士參加。

研討會每兩年舉辦一次,為期兩天,是機電工程署的重頭活動之一,為本港及國際專家與管理人員,就機電安全其能源效益的規管及工程事宜,公至其他相關議題,提供一個定期的交流平台。明會一直深受參與的本港、內地及海外專業人士歡迎,他們來自不同界別,包括公營機構、顧問公司、學術界、業界組織、環保團體及其他機構等。

# 與國家質檢總局合作十周年

2013年是機電工程署與國家質量監督檢驗檢疫總局(國家質檢總局)就機電安全和能源效益事宜建立合作關係的第十個年頭。我們最初與國家質檢總局簽訂一份有效期由2003年至2007年的《機電產品安全合作安排》四年協議,

繼後再接續簽訂兩份合作協議,有效期分別為2007年至2011年及2011年至2015年。回顧過去十年,雙方在定期交流、培訓、網上資訊分享,及與每年於香港及內地交替舉行的過去會方面,都取得豐碩的合作成果。過去不會,我們更聯手推行通報機制,就不會規格的家用電氣產品與氣體用具,及關乎升降機和自動梯及能源效益的事項,相互作出通報。

2013年7月,我們與國家質檢總局代表 在香港慶祝雙方合作十周年,並舉行了 一個研討會,安排本地業界與總局代表 交流意見。



與業界面對面溝通是最有效解決疑難的方法之一。 Face-to-face communication is one of the best ways to address the trades' concerns.



與業界聯手宣傳安全行為和做法,是我們公眾安全教育工作的要素之一。 Collaborating with the trade to publicise safe behaviour and practices is a key component of our public education programme.

We use a two-pronged approach to raise awareness of safety and energy efficiency in Hong Kong, namely by engaging the trade and the public. Both online and offline channels are used, while face-to-face interactions remain a key aspect of our various programmes to maximise impact.

### **ENGAGING THE TRADE**

Year after year, we initiate and maintain myriad communications with the regulated trades and other stakeholders, aiming to help them comply with the law and adopt best practices. Such engagement comes via committees, task groups, charters, schemes, special events, forums and conferences, among others. Direct and frequent communication with the trade is also important for us as regulators to get a sense of market reality and to detect trends that might have safety implications.

# Symposium on E&M Safety and Energy Efficiency 2014

Held on 20-21 January at the Hong Kong Science Park, the Symposium on E&M Safety and Energy Efficiency 2014 featured prominent local and overseas speakers in lively discussions on issues relating to electrical, gas, mechanical and railway safety and the efficient use of energy. The 2014 symposium was jointly hosted with the Hong Kong Institution of Engineers and attracted around 350 local, mainland and overseas professionals.

This biennial two-day seminar has been one of EMSD's signature events, providing a regular forum for local and international leaders and managers in E&M safety and energy efficiency to deliberate on regulatory and engineering issues and other pertinent topics. It has a history of being very well received by its target audience of local, mainland and overseas professionals from the public sector, consulting firms, academia, trade associations, green groups and other organisations.

# 10th Anniversary of AQSIQ Cooperation

The year 2013 marked the 10th anniversary of EMSD's cooperation with the mainland's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) on E&M safety and energy efficiency matters. We first signed a four-year "Cooperation Arrangement on Electrical and Mechanical Products Safety" with AQSIQ for 2003-2007, followed by two successive agreements for 2007-2011 and 2011-2015. The past decade has seen fruitful cooperation in terms of regular exchange, training and online information sharing, as well as annual meetings with AQSIQ officials, which were held alternately in Hong Kong and Mainland China. For several years, we have also jointly operated an alert mechanism with regard to noncompliant domestic electrical and gas appliances, as well as lifts and escalators and energy efficiency related issues.

The 10th anniversary was celebrated in Hong Kong with AQSIQ delegates in July 2013. A trade seminar was also held to provide a forum for AQSIQ delegates and the trades from Hong Kong to exchange views with each other.



我們已於機電工程署網站增添更多網上工具,協助業界符合法例要求。 More online tools on the EMSD website are now available to help the trade comply with the relevant laws.

### 與業界直接溝通

我們透過多種方式與持份者直接溝通,包括與受規管業界及公用事業機構進行定期會議;成立諮詢委員會及工作組以凝聚共識及促進各項條例的闡釋上數分容及建議的新措施徵詢業界意見。此外,我們也經常為業界(例如電業界)舉辦比賽,推行持續進修計劃及其他培訓項目,藉以提倡着重持續進修、卓越技術和安全意識的文化。

與承辦商直接溝通也很重要,目的是確保承辦商清楚了解所有安全措施及作業方法,並在工地切實執行。舉例說,我們在2013年為氣體工程承辦商舉辦了28場安全簡報會和研討會,以及199次在工地現場進行的氣體安全推廣活動,講解在施工時如何避免損毀氣體喉管。

如有需要,我們也會派出安全大使及推 廣人員到訪全港商鋪及營運者,宣傳能 源效益和機電安全信息。例如,我們的 安全大使,已數次走訪全港3 700多個 家用電器零售商,務求加強他們對「強制性能源效益標籤計劃」的認識。我們的推廣人員亦曾到訪數以千計的車輛維修工場,鼓勵車場東主和營運者加入「車輛維修工場約章計劃」。

### 增加網上工具

為協助業界符合法例要求,我們已推出 更多網上工具供業界使用。在2013/14 年度,我們在機電工程署網站推出了 「負責人天地」(http://www.emsd.gov. hk/emsd/chi/pps/leo\_rpc.shtml)。這是 一個網上資料庫,收集與升降機及自 動梯相關的各類安全手冊和單張、升 降機標準保養合約樣本、政府升降機 保養價格資料及其他工具等,方便升 降機及自動梯負責人履行《升降機及自 動梯條例》下的法定責任。另一個新 增的實用網上工具是「氣體安全網站」 (http://www.gsp.emsd.gov.hk),該網 站在全面啟用後,將可滿足業界及公眾 的需要。



# **Direct Communication with** the Trade

We directly communicate with stakeholders through regular meetings with the regulated trades and utilities and via a variety of other means, including advisory committees and task groups set up to foster consensus and facilitate the implementation of ordinances; trade briefings and seminars to explain key legislative provisions; and consultations to solicit views on draft codes of practice and proposed new measures. Trade competitions and continuing professional development programmes and other training initiatives, such as those for the electrical trade, are organised from time to time to foster a culture of continuous learning, technical excellence and safety awareness.

It is also important for us to directly communicate with contractors so that they are aware of all safety precautions and practices and actually apply them on worksites. For example, during 2013 we hosted 28 safety briefings and seminars for gas contractors and held 199 on-site gas safety promotions on how to avoid damaging gas mains during works.

Where necessary, we also deploy ambassadors and promoters to visit individual shops and operators throughout the territory to convey our energy efficiency and safety messages. For example, our ambassadors have completed several rounds of visits to all 3 700-plus domestic electrical appliance retailers in Hong Kong to reinforce their knowledge of the Mandatory Energy Efficiency Labelling Scheme. Our advocates have also visited thousands

of vehicle maintenance workshops to urge owners and operators to join the Vehicle Maintenance Workshop Charter Scheme.

### **More Online Tools**

To facilitate compliance with the law, we have made more online tools available to the trade. New additions in 2013/14 included a Responsible Persons' Corner on the EMSD website (http://www.emsd.gov.hk/emsd/eng/ pps/leo\_rpc.shtml), which is an online repository of various explanatory handbooks and pamphlets, standard lift maintenance contracts, government lift maintenance pricing information and other tools to help RPs to discharge their statutory duties under the Lifts and Escalators Ordinance. Another useful new tool is the Gas Safety Portal (http://www.gsp.emsd.gov.hk), which will cater to the needs of both the trade and the public when completed.



機電工程署與港九電器工程電業器材職工會及香港電器工程商會代表,於2013電力規例研討會中大合照。
Representatives from EMSD, the Hong Kong & Kowloon Electrical Engineering & Appliances Trade Workers Union and the Hong Kong Electrical Contractors' Association in a group photo at the Electricity Regulations Seminar in 2013.

### 推動市民參與

我們每年都透過各項公眾教育計劃、專項活動、廣告及宣傳推廣,把機電安全知識傳達給市民,同時在家居及工作間提倡能源效益。由於我們規管服務的範圍相當多元化,服務對象也非單一群體,而是涵蓋多個特定目標社群,例如不同年齡的學生、家長、家庭主婦和長者等。我們會針對不同群體的需要,以最有效的渠道和他們聯繫溝通。

## 學校外展項目

2013/14年度,我們的能源效益事務處在全港各中小學校和社區中心,舉辦了52場講座和51個展覽,推廣能源效學和節能知識,接觸了約52 400名 生和參觀人士。同時,電力法例部內對人生,是訪了287個機構,包9家幼稚園、53家小學、75個老包中心和社區中心,共接觸了約42 000位參加者。而一般法例部的外展大使,自29 000位來自社會各階層的人。

### 鐵路安全手冊

年內,我們出版了一本名為《安全鐵路開心旅程Go Go Go!》的全面鐵路安全手冊,於港鐵站派發。手冊描述一個有趣的動畫家庭,在前赴演唱會途中的經歷,藉以表達在本港進行安全鐵路之旅的各個要點。手冊可在下列網址下載(http://www.emsd.gov.hk/emsd/c\_download/pps/Handbook\_Chi\_web.pdf)。

### 推出更多新短片



我們以有趣的動畫人物,例如「e家」一家人,製作電力安全短片,在部門的YouTube頻道頗受歡迎。
Using fun cartoon characters such as these in the "e-Family" to promote electrical safety via short videos has been well received on the EMSD YouTube channel.

#### **ENGAGING THE PUBLIC**

We run various public education programmes, special events and advertising and publicity campaigns each year to share E&M safety tips with the public and promote energy efficiency in homes and workplaces. As the range of our regulatory services is diverse, the public we serve is not a homogeneous group, but rather comprises laymen from many specific target groups, such as students of different ages, parents, housewives and elderly people, just to name a few. We seek to reach and interact with them via the most effective channels.

# **School Outreach Programme**

We have the practice of deploying ambassadors to visit schools and the community to introduce and reinforce E&M safety and energy efficiency through outreach talks and exhibitions. As the needs of different schools and community organisations are varied, we offer three modules of outreach educational programmes, each conducted by a different Division with a distinct focus: energy efficiency and conservation, electrical safety, and lift and escalator as well as amusement ride safety. Each module also makes reference to related topics of E&M safety and energy efficiency.

In 2013/14, our Energy Efficiency Office organised 52 talks and 51 exhibitions on energy efficiency and conservation at various primary and secondary schools and community centres, reaching about 52 400 students and visitors. At the same time, safety ambassadors from the Electricity Legislation Division visited 287 institutions covering 159 kindergartens, 53 primary schools, 75 elderly and community centres, reaching about 42 000 participants. The General Legislation Division also sent its ambassadors to kindergartens, primary schools, youth centres and elderly centres to hold interactive talks and exhibitions. About 400 such visits were made during the year, reaching about 29 000 individuals from all strata of the community.

# **Railway Safety Handbook**

A comprehensive Railway Safety Handbook called "Railway Safety – Happy Journey Go Go Go!" was published during the year for distribution at MTR stations. It covers key points for a safe journey on the city's railway network, presented by a family of fun cartoon characters on the way to a superstar concert. The handbook can be accessed online at http://www.emsd.gov.hk/emsd/e\_download/pps/Handbook\_Eng\_web.pdf.

## **More New Videos**

In the Internet age, online videos are a popular means of accessing information anytime, anywhere. The EMSD YouTube channel featured new electrical and lift safety videos last year, in the form of animated stories using fun cartoon characters such as our "e-Family". Other videos for the public include short dramas depicting real-life situations. One such video shows what happens when two boys have to be rescued from an aging lift, leading to an overview of why and how lift modernisation ought to be carried out by property owners. These short videos make it easy for laymen of all ages to grasp important safety knowledge applicable to daily life.



最新出版的鐵路安全手冊,可於網上下載或 於港鐵站索取。

A recently published railway safety handbook that can be downloaded online or obtained from MTR stations.