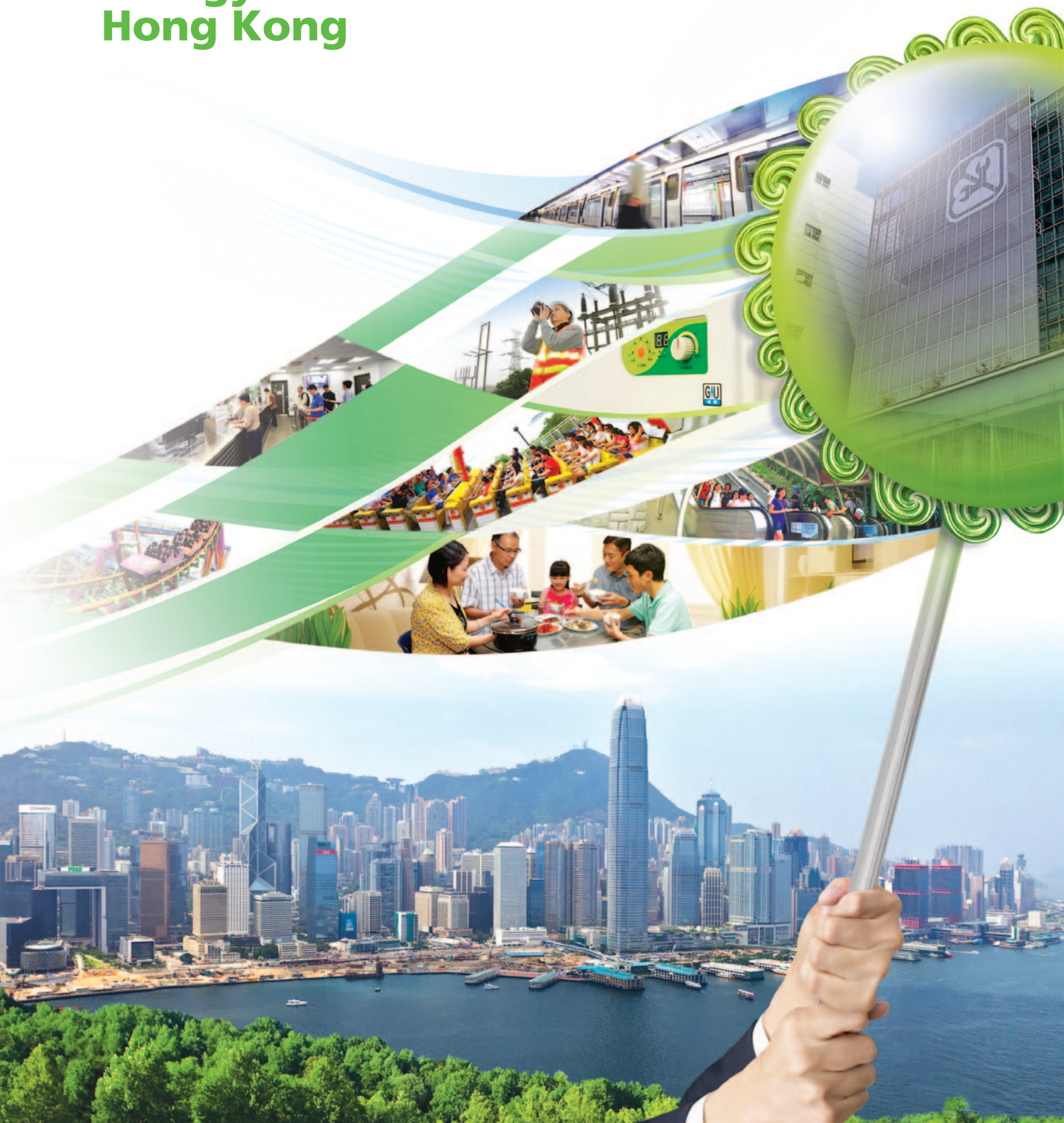


安全節能在香港

機電工程署規管服務 2011 年業務概覽
Electrical and Mechanical Services Department
Regulatory Services - Achievements Overview 2011

A Safe and Energy Efficient Hong Kong



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



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重要活動

Achievements and Initiatives

電業界持續進修計劃

我們於2011年完成了「註冊電業工程人員持續進修計劃」的最後籌備工作，並由2012年1月起實施。計劃規定由當日起，所有註冊電業工程人員必須完成有關的持續進修，方可獲得註冊續期。我們積極推動電業界持續進修的文化，這計劃是個里程碑。這進修計劃提供兩個單元的培訓，即法例及安全規定與技術知識。這計劃是我們經全面諮詢業界後推出的，獲得所有持份者包括商會和工會組織的支持，目前已有10多個認可機構，提供有關課程。業界的大力支持，有助全港註冊電業工程人員定期更新其技術知識，和加強對法例的了解。

CONTINUING PROFESSIONAL DEVELOPMENT FOR ELECTRICAL TRADE

The year 2011 saw the completion of final preparations for a Continuing Professional Development (CPD) Scheme for Registered Electrical Workers (REWs). At its launch on 1 January 2012, CPD became a condition of registration renewal for all REWs, marking a milestone in our efforts to foster a continuous learning culture for the electrical trade in Hong Kong.

The CPD Scheme provides a two-module training programme, covering "legislative and safety requirements" and "technical knowledge". Developed in full consultation with the trade, the Scheme is well supported by all relevant stakeholders, including the trade and union associations, and more than ten qualified organisations are now offering CPD courses. This level of support helps us ensure that all REWs regularly update their technical skills and safety and statutory knowledge.

氣體安全服務獲公務員獎項

我們兩個氣體安全服務項目，榮獲2011年公務員優質服務獎勵計劃的「監管／執行服務獎」。「健調氣順」隊和「先知先覺」隊分別獲頒銀獎和銅獎。「健調氣順」隊以風險管理的模式，提高煤氣供氣分喉的安全，而「先知先覺」隊的「多走一步」項目，則使全港石油氣加氣站的地底氣缸覆驗工程得以順利進行。

兩個項目也帶來實質成效。「健調氣順」隊自2007年開展工作以來，煤氣供氣分喉事故顯著減少，業主對供氣分喉的安全意識也提高。「多走一步」自2008年開始以來，全港有30多個石油氣加氣站已完成了氣缸覆驗工程。由於負責同事的周詳策劃，及與車輛業界與相關政府部門事前作有效溝通，工程引起的干擾也減到最少。

GAS SAFETY INITIATIVES WIN CIVIL SERVICE AWARDS

Two gas safety initiatives won awards in the Regulatory / Enforcement Service category of the Civil Service Outstanding Service Award Scheme 2011. The "Reviving Gas" initiative, a risk-based approach to enhancing the safety of town gas risers on buildings in Hong Kong, won the Silver Award, while the "One Extra Step" initiative, which ensures the efficient execution of underground tank re-validation works in LPG gas filling stations through the territory, won the Bronze Award.

The initiatives have also brought tangible results. The number of riser incidents has dropped substantially since 2007, when "Reviving Gas" was introduced, with increased riser safety awareness among property owners. Following the launch of "One Extra Step" in 2008, more than 30 LPG filling stations have completed re-validation works with minimum disruption to LPG vehicles and nearby road traffic as a result of meticulous planning and prior communication with the vehicle trade and relevant government departments.

《升降機及自動梯條例》草案進展順利

《升降機及自動梯條例》草案在立法會有所進展，是2011年我們向前邁進的一大步。由於草案審議工作在2011年底有很大進展，草案應可預計在2012年4月獲立法會通過*。新法例名為《升降機及自動梯條例》（第618章），將大大加強本港的升降機和自動梯安全規管架構，而有關的安全責任，也較平均地由主要持份者，包括升降機和自動梯擁有人、管業公司、承辦商、工程師和工程人員共同分擔；一旦違例，罰則也較重。新法例將更能滿足社會需要和公眾期望。

LIFTS AND ESCALATORS BILL MAKES GOOD PROGRESS

The progress of the Lifts and Escalators Bill through the Legislative Council (LegCo) was a major step forward in 2011. As vetting of the Bill gained tremendous progress at the end of year, the Bill is expected to be passed by LegCo in April 2012. Known as the Lifts and Escalators Ordinance (Cap 618), the new legislation gives Hong Kong a more robust regulatory framework, under which the responsibilities for the safety of lifts and escalators are shared in a more balanced manner among key stakeholders, including owners, property management companies, contractors, engineers and workers, with heavier penalties for offences. The new legislation will also better satisfy community needs and expectations.

檢討港鐵標準和做法

由於自2008年起，發生了多宗路軌裂縫事故，2011年的一項工作重點，是全面檢討香港鐵路有限公司（港鐵公司）在路軌採購、路軌品質控制及檢查與維修方面的標準和做法。機電工程署對港鐵公司呈交的顧問研究報告進行獨立審核後，同意港鐵公司在物料供應、路軌焊接和無損探傷測試各方面的工序，都應採納最新的歐洲標準。我們更建議港鐵公司應為每批付運到港的路軌設備進行抽樣測試。所有改善建議已被港鐵公司採納，並獲立法會接受。

MTR STANDARDS AND PRACTICES REVIEWED

A major initiative in 2011 was a comprehensive review of MTR Corporation Limited (MTRCL) standards and practices relating to rail procurement and quality control and the inspection and maintenance of rails. The review followed a spate of rail breakages since 2008.

After our independent review of the consultancy report from MTRCL, we agreed that MTRCL should adopt the latest European standards for procedures concerned with material supply, rail welding and non-destructive testing. We also recommended that MTRCL should conduct random inspections of items within each batch of rail components shipped to Hong Kong. The recommendations were adopted by MTRCL and accepted by LegCo.

*條例草案已於2012年4月於立法會通過成為《升降機及自動梯條例》。
The Bill was passed by LegCo in April 2012 to become the Lifts and Escalators Ordinance.

推行強制性能源效益標籤計劃第二階段

2011年一項主要成績，是順利推行強制性能源效益標籤計劃第二階段。第二階段已於2011年9月起全面推行，除第一階段涵蓋的空調機、冷凍器具和緊湊型熒光燈以外，第二階段更涵蓋洗衣機和抽濕機。

由於計劃的第一階段相當成功，因此第二階段開始推行之日，大部份業界已符合法例要求，而由於業界對法例認知度很高，執法相當順利。其實計劃由2009年11月推行第一階段以來，一直都得到相關產品零售商和進口商的支持，因此業界守法的比率持續高企。

MEELS PHASE TWO COMMENCES IMPLEMENTATION

A major achievement in 2011 was the smooth implementation of Phase 2 of the Mandatory Energy Efficiency Labelling Scheme (MEELS). Coming into force in September 2011, Phase 2 added washing machines and dehumidifiers to the room air conditioners, refrigerating appliances and compact fluorescent lamps covered under Phase 1.

Building on the success of Phase 1, the vast majority of the trade is compliant with Phase 2 requirements, with a very high level of awareness of the Scheme facilitating smooth enforcement. Thanks to the support of retailers and importers of the product categories covered, the trade's compliance rate has been very high ever since the implementation of MEELS Phase 1 in November 2009.



高層管理人員

Senior Management



1. 署長

陳帆太平紳士
機電工程署署長

Director
CHAN Fan, JP
Director of Electrical and Mechanical Services

2. 副署長

薛永恒太平紳士
副署長 / 規管服務

Deputy Director
SIT Wing Hang, Alfred, JP
Deputy Director / Regulatory Services

3. 助理署長

李國強
助理署長 / 電力及能源效益

Assistant Director
LI Kwok Keung
Assistant Director / Electricity and Energy Efficiency

4. 助理署長

賴漢忠
助理署長 / 氣體及一般法例

Assistant Director
LAI Hon Chung, Harry
Assistant Director / Gas and General Legislation

5. 助理署長

梁建民
助理署長 / 鐵路

Assistant Director
LEUNG Kin Man
Assistant Director / Railways

6. 秘書

周楚添
主任秘書

Secretary
CHOW Chor Tim
Departmental Secretary

7. 會計師

林志賢
部門會計師

Accountant
LAM Chi Yin
Departmental Accountant

署長的話

Message from the Director



陳帆太平紳士
Chan Fan, JP

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



我們也欣然報告，規管服務為了加強透明度和工作績效，經過近幾年不斷努力，與傳媒已建立了正面的工作關係，並重建了公眾信心。

We are also pleased to report that, after several years of hard work to boost the transparency and effectiveness of our regulatory services, we have established a positive working relationship with the media and rebuilt public confidence.



建立業界關係是我們2011年的工作重點，而較出色的工作應為《升降機及自動梯條例》的順利立法過程。新法例強調升降機和自動梯擁有人、管業公司、承辦商、工程師和工程人員的共同責任，並訂立一套全新的規管架構及條文，更能配合今天的科技水平和社會要求。在草擬條文和諮詢的過程中，我們與業界進行了深入討論，建立了互信和了解，為未來工作奠定了良好基礎。

建立互信

同樣，我們去年就2012年稍後推行的《建築物能源效益條例》主要條文，與業界進行了緊密聯繫，包括註冊能源效益評核人、物業管理公司和其他業界人士，並建立了良好工作關係，這對今年9月開始推行條例的工作至為重要。

我們也欣然報告，規管服務為了加強透明度和工作績效，經過近幾年不斷努力，與傳媒已建立了正面的工作關係，並重建了公眾信心。2011年8月，我們邀請了全港各大傳媒的廿多位記者與編輯，來到總部大樓小聚，分享我們的工作重點和未來方向，象徵了規管服務重新出發的一步。

價值與影響

我們做每件事，無論是機電安全和能源效益的教育與執法工作，或是其他支援政府的項目，都必須產生價值和影響。所以，每當推行像《升降機及自動梯條例》的新法例時，我們都應問自己，由推行的第一天起，我們可以做些甚麼，讓社會因而有所改變？答案之一，是我們應遠在推行日子來臨之前已開始工作。

舉個例，在強制性能源效益標籤計劃第一階段和第二階段全面推行的當天，絕大部份的業界人士已符合法例的要求，原因是我們一早已採取了多項措施，包括執法前的全面稽核、及與業界進行有效溝通等。對即將推行的《升降機及自動梯條例》及《建築物能源效益條例》，對推行首日我們也有同樣的期望，有關同事也正朝這目標努力。常言道，好的開始是成功的一半。與其日後花時間修補紕漏，不如一早用心做到最好。

Relationship building was key to our work in 2011. Among several milestones, the smooth legislative progress of the Lifts and Escalators Ordinance (LEO) stands out. The new legislation will reinforce shared responsibilities among lift owners, property management companies, contractors, engineers and workers, with a new regulatory framework and provisions that are more in sync with current technologies and social expectations. In-depth discussions with the trade during the drafting and consultation stages helped build up mutual trust and understanding, providing a good foundation for going forward.

BUILDING TRUST

Similarly, close liaison with the trade during 2011 to prepare for the implementation of the core provisions of the Buildings Energy Efficiency Ordinance (BEEO) later this year has reinforced positive working relationships with Registered Energy Assessors, property management companies and other members of the trade. This will be important for the smooth enforcement of the law when implementation begins in September 2012.

We are also pleased to report that, after several years of hard work to boost the transparency and effectiveness of our regulatory services, we have established a positive working relationship with the media and rebuilt public confidence. As a symbolic re-launch of our work, we invited key Hong Kong media to join us in August 2011 at a gathering at our headquarters where we shared highlights of our work and future direction with more than 20 editors and journalists.

VALUE AND IMPACT

There must be value and impact in everything we do, be it E&M safety, energy efficiency education and enforcement, or other work supporting Government's initiatives. Thus we ask ourselves what we can do to make a difference from the very first day of implementing a new law such as the LEO. Part of the answer is that we begin our work well before the implementation date.

For example, on day one of the implementation of both phases of the Mandatory Energy Efficiency Labelling Scheme (MEELS), the vast majority of the trade were already compliant with the law. This was made possible through a combination of measures, including a pre-enactment audit and effective communication with the trade. We expect no less from the first day of implementation of the LEO and of the BEEO, and are working hard towards it. As the saying goes, a good start is half the battle. It is much better to work hard early on to ensure a good beginning than to spend our efforts later on fixing loopholes.

行政手段與市場力量

近年我們經常鼓勵同事採用行政手段去協助業界守法，例如於進行電力裝置定期檢測前，必須先呈交已安排停電的證明文件。只要行政手段是在有關法例範疇內的合理措施，我們沒理由不去善加運用。

我們近年也增加使用市場力量，進行支援性的工作，讓同事可專注核心的規管業務。我們大部份的學校外展活動已經外判，而且不斷探索新意念，比如我們可否考慮採用「培訓培訓者」的手法，用我們2011年出版的《機電安全與能源效益通識教材》，讓老師培訓學生這方面的知識，甚至由學生領導朋輩互相學習？只要我們不斷去審視現有的項目，力求改善，自然會發現很多可能性。

管理老化基建設施

香港未來十年的一大挑戰，是為城市日漸老化的基建設施，加快進行維修保養和更新工作，升降機、電纜和喉管是明顯的例子。《升降機及自動梯條例》和部份公用事業機構的更換舊設施計劃，就是要處理基建老化的問題。香港的維修保養文化不錯，但政府要帶頭推動，讓我們城市的基建資產得到適當管理，保持最佳狀態。

全情投入的規管者

作為有效的規管者，單是執法並不足夠，而必須透過所有行動，創造公眾價值，並能全情投入去帶動業界守法。舉例說，與業界開會，我們固然可以一板一眼完成議程了事，但也可以全情聆聽，用心與業界互動溝通，務務找出對各方最有利的方案。這方面要做得出色，溝通技巧固然重要，但維繫業界和其他持份者時的態度和投入感，也是關鍵。

ADMINISTRATIVE MEASURES AND MARKET RESOURCES

For the past few years we have been encouraging our colleagues to use administrative measures to help the trade comply with the law, such as the requirement for documentary evidence of power suspension before WR2 inspections can be carried out. As long as the administrative measures are within the ambit of the relevant ordinance, there is every reason to make good use of them.

In recent years we have been using more market resources to perform support activities, so that staff may focus on their core regulatory tasks. Most of our school outreach activities, for example, are already outsourced, but we are constantly looking for innovative new programmes. We might consider a train-the-trainer initiative that would empower teachers to educate their students, or even train students to teach their peers, using materials from the Liberal Studies Kit on E&M Safety and Energy Efficiency we published in 2011. The possibilities are many, and the key is that we ought to be constantly reviewing existing programmes for improvement.

MANAGING AGING INFRASTRUCTURE

A challenge for Hong Kong in the next decade is the need to step up maintenance and replacement works for the city's aging infrastructure. Lifts, cables and pipes are obvious examples. The LEO, along with some of our public utilities' mains replacement programmes, are solutions to address this challenge. The maintenance culture is reasonably good in Hong Kong; but the Government ought to play a role in advocating proper management of our infrastructural assets to ensure tip-top performance.

REGULATOR WITH A PASSION

Being an effective regulator is more than enforcing the law. We must also be aware of the need to create public value in all our actions, and have the passion to motivate the regulated trades to comply with the law. Take conducting meetings with the trade for example. It is one thing to hold a consultation meeting that follows the right procedures and ticks off all the agenda items, but quite another to listen, interact and communicate with one's heart in order to find the best possible solution for all. Engagement skills will make a difference, so too will the attitude and passion to engage the trades and other stakeholders.



我們做每件事，無論是機電安全和能源效益的教育與執法工作，或是其他支援政府的項目，都必須產生價值和影響。

There must be value and impact in everything we do, be it E&M safety, energy efficiency education and enforcement, or other work supporting Government's initiatives.



2012年及長遠發展

《升降機及自動梯條例》與《建築物能源效益條例》都於今年推行，我們現正加緊籌備宣傳和執法工作，務求法例由推行的首天起，已能立竿見影，做出成效。我們希望，通過有效執法，這些條例確能改善市民的生活質素。

我們也希望同事的工作方式更有創意，不怕走出自己的安全地帶，探索新的做事方法。舉個例，我們在檢討強制性能源效益標籤計劃的標籤級別定義時，可以更進取，訂出更高的標準和要求；在面對傳媒的時候，我們可以更主動積極。至於運用市場力量，我們可外判更多工作，並嘗試創新的外判方式。此外，我們也要透過更佳的文獻紀錄和知識管理，加強知識的承傳和學習，以填補因員工調動和退休引致的經驗流失；我們會繼續鼓勵同事，建立一套勇於反思和擅於思辨的文化，並培養以客觀證據和對規管目標有深入理解為基礎的決策能力。

致謝

《升降機及自動梯條例》與《建築物能源效益條例》的立法和籌備工作，去年得以順利進行，業界和公眾的支持尤見重要，我們衷心致謝。

員工在年內表現勤奮、專業和靈活應變，工作上的挑戰雖接踵而來，同事都一一沉著應付，非常出色。

我們也感謝各個政策局的領導，並感謝傳媒、其他持份者和市民的支持。

規管服務期望日後能繼續以積極實幹的精神，精益求精，持續改進服務。



機電工程署署長
陳帆

2012 AND BEYOND

This year will see both the LEO and BEEO come into operation. Hence we are gearing up for full-fledged publicity and enforcement work to make sure there is impact from day one of implementation. It is important that these pieces of legislation make a difference in people's everyday life through our enforcement.

We would also like to see more innovation in the way we work. We must not be afraid to take ourselves out of our comfort zone to find new ways of doing things. We can also be more aggressive, for example in setting higher standards and requirements when we review MEELS grading definitions. We can be even more forthcoming and pro-active when we deal with the media. More market resources ought to be used and creative ways of outsourcing further explored. Knowledge transfer, by way of better documentation and knowledge management, should be enhanced to make up for the loss of experience due to staff re-posting and retirement. We should also continue to encourage a culture of reflection and critical thinking, as well as decision making based on objective evidence and sound understanding of the regulatory objectives.

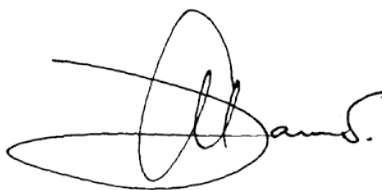
GRATITUDE TO STAKEHOLDERS

Support from the trades and the public has been particularly important in the past year, without which the respective enactment and preparatory work for the LEO and BEEO would not have been so smooth. We wish to convey our appreciation and gratitude.

A note of thanks also goes to our colleagues who have demonstrated exceptional diligence, professionalism and agility as they were called upon to tackle one challenge after another. We are happy to see them unfailingly rise to the occasion.

Our gratitude also goes to the various policy bureaux for their guidance and to the media and other stakeholders, including members of the public, for their support.

We look forward to fostering the can-do spirit of continuous improvement in all aspects of our work in the years to come.



Chan Fan
Director of Electrical and Mechanical Services

業務回顧 **Operations Review**



薛永恆太平紳士
SIT Wing Hang, Alfred, JP

副署長 / 規管服務
Deputy Director / Regulatory Services



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From an operations point of view, 2011 was another fruitful year marked by a number of breakthroughs.



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落實法例

經過立法程序後，《升降機及自動梯條例》將為本港升降機及自動梯安全規管工作展開新篇章。與此同時，籌備推行《建築物能源效益條例》的工作在2011年也進行得如火如荼，而兩份相關之最新版本實務守則，則為便利業界符合《建築物能源效益條例》訂定了詳細技術規定。

《升降機及自動梯條例》和《建築物能源效益條例》雖各有規管範圍和目標，但都是為了提升市民的生活質素。到今年稍後，兩條法例開始推行的時候，我們必會有效執法，務求落實法例原意。

持續改善 提高透明度

規管服務同事近年著重持續改善服務，是我們樂於見到的現象。以《升降機及自動梯條例》為例，整個新法例從當初籌劃、到全盤改善了升降機及自動梯安全的規管架構，是我們近年的重大改善項目。另一成就，是於2011年9月引進了註冊自動梯承辦商表現評級制度。這個類似註冊升降機承辦商表現評級的制度，既大大增加了透明度，也方便自動梯擁有人及公眾監察各個承辦商的表現，在選擇承辦商時作出明智選擇。

此外，我們各個部別均定期在機電工程署網頁公布各種數字和資訊，供公眾參考，例如車用石油氣樣本化驗結果、專用石油氣加氣站的車用石油氣上限價格調整、淡水冷卻塔抽樣水質檢測結果、能源標籤的能源表現監察測試結果、註冊升降機承辦商和註冊自動梯承辦商表現評級、以及各種事故調查報告全文等。我們有需要時也會發出相關的新聞稿，方便公眾了解數字和資訊的重點。

我們在2011年8月舉行了一次傳媒聚會，跟各大報章、電視電台記者編輯，分享我們的工作重點和未來方向，象徵了規管服務的重新出發。我們的同事，以往都較喜歡在幕後努力，很少到台前解釋自己的工作和觀點。不過近年來我們明白到，高度透明實在十分重要，而跟傳媒的工作關係，也不應限於個別事故的溝通，而是要採取主動，與傳媒維持恆常的聯繫與對話。

BRINGING LAWS TO LIFE

After going through the necessary legislative process, the Lifts and Escalators Ordinance (LEO) will open a new chapter for Hong Kong's lift and escalator safety regulatory work. Preparations for the implementation of the Buildings Energy Efficiency Ordinance (BEEO) also continued at pace throughout 2011, with two updated Codes of Practice. The Codes provide technical requirements to facilitate the trade to comply with the BEEO.

While the LEO and BEEO govern different areas and have different regulatory objectives, both aim to contribute to community wellbeing. We will ensure they achieve this aim by effectively enforcing the two ordinances when they become fully operational later this year.

CONTINUOUS IMPROVEMENT AND TRANSPARENCY

We are also glad to see the Regulatory Services team successfully focusing on continuous improvement. Introducing the LEO, and thus revamping the entire regulatory framework of lift and escalator safety, was a key improvement initiative of the past few years. Another achievement was the launch of the Escalator Contractor Performance Rating System in September 2011. Modelled on a similar system for lift contractors, the Escalator Contractor Performance Rating System enhances transparency by enabling facility owners and the public to monitor contractor performance more effectively and make informed choices more readily.

In terms of transparency, it is now our Divisions' established practice to regularly post data on the EMSD website. The data we typically share includes auto LPG quality test results and dedicated filling station auto LPG ceiling price movements, fresh-water cooling tower water sample test results, energy label compliance monitoring test results, lift and escalator contractor performance ratings, as well as full investigation reports for public access. To assist the public in interpreting this information, it is often accompanied by a press release or press briefing, as necessary.

We held a symbolic re-launch of our work in August 2011. This involved a media gathering at which we shared our priorities and future direction with editors and journalists from key daily newspapers and TV and radio programmes. This was another breakthrough for our team, which in the past would prefer to toil behind the scenes instead of coming forward to explain our work and perspective to the media. We have come to appreciate the importance of a high level of transparency, as well as the value of maintaining a pro-active, ongoing dialogue with the media rather than relying on incident-driven communications.

危機處理與「地球村」

近年我們經歷了不少危機，因此對預防和處理危機已較有經驗，很多部別也根據規管服務的《危機預防、應變與處理計劃》進行了演練，一方面磨練危機處理技巧，同時也可找出計劃的不足之處，加以改善。

世界現已是個「地球村」，因此危機處理的意義也跟以前不同，不再受地理界線所限。大家見過不少天災人禍，瞬間已影響整個地區，引起廣泛關注。我們作為規管機構，面對的挑戰是確保本港的主要系統都能保證高度安全，同時有能力使本港市民放心。

香港也吸引不少外來的新興娛樂形式及盛事，有些也屬於我們的規管範圍。有時候，這類規管工作確實考驗我們的技術知識，也考驗我們對機電安全條例和其規管目標的理解，以及相應的執法原則。因此，我們必須繼續在培訓和培養人才方面下功夫，建立一個不斷學習和有思辨能力的文化，讓同事在面對陌生領域的時候，能作出明智的判斷。

優化現有基礎設施

香港未來十年，基礎設施會老化，必須加快維修保養和更新工程。單是建築物，已是個嚴峻挑戰。全港有4萬多幢大廈，每年更新增約600幢，如果要確保公眾安全和高能源效益，大廈的翻新和維修保養工作必不可少。

CRISIS MANAGEMENT AND “GLOBAL VILLAGE”

Crisis management has presented us with a steep learning curve in recent years, but we are now more adept in preventing and managing crises. Many Divisions have held drills and simulations on the basis of our Crisis Prevention, Response and Management Plan, not only to hone their crisis handling skills but also to identify loopholes in the Plan for improvement.

Now that we all live in a “global village”, crisis management has taken on a new dimension and is no longer confined by geographic borders. We have all seen examples of natural and man-made disasters that quickly affect entire regions, causing widespread concern. The challenge for us as a regulator is to ensure that our system is sufficiently sound to maintain a high level of safety, and also that we have the capability to reassure the public in Hong Kong that this is the case.

By the same token, Hong Kong continues to attract new forms of entertainment and events from overseas, some of which fall within our regulatory ambit. From time to time, these challenge our technological expertise and test how we uphold our enforcement principles based on in-depth understanding of the E&M safety ordinances and their regulatory objectives. It follows that we must continue to focus on training and capacity building and on establishing a culture of learning and critical thinking, so that our people can make sound judgments when charting new territory.

MAKING EXISTING INFRASTRUCTURE MORE RELIABLE

It is noted that there is the need for Hong Kong to step up maintenance and replacement work for our aging infrastructure in the coming decade. This will be a major challenge, even just for buildings alone. Hong Kong has more than 40,000 buildings, with some 600 added every year, so renovation and maintenance are essential to ensuring public safety and a more energy efficient community.



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新的《升降機及自動梯條例》與《建築物能源效益條例》，分別對升降機及自動梯安全與建築物能源效益作出更嚴格的法定要求。除了使用法定權力辦事，我們還可運用各種誘因和行政手段，去引導資產擁有人及其他持份者提高基礎設施的品質和安全度。我們的優化升降機計劃就是一例。計劃的目的，是鼓勵升降機擁有人採取優化工程，例如為舊升降機安裝雙重制停系統等，讓老化的設施變得更安全可靠和舒適。當優化工程的需求增加，市場力量就會驅使承辦商主動向升降機擁有人和管業公司推廣生意，締造一個不斷進行改善和優化工程的互動文化。

至於提升電力安全方面，我們在2011年經全面諮詢電業界後，由2012年1月起實行持續進修計劃，作為註冊電業工程人員註冊續期的條件。這是電業界向前發展的重要一步；而整個行業的全部前線人員都必須進行持續學習這點，可算創了先河。

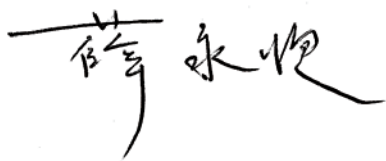
學習與發展

同樣，我們也期待規管服務的同事投入持續培訓和發展，我們還會恢復為年青工程師而設的海外附屬培訓計劃，讓學員能深入了解像鐵路、電力和氣體廠房所用的大型工程系統設施的設計和生產過程。這種經驗，對他們日後做好規管服務工作十分重要。

這類沉浸學習要有成效，一般需時6至12個月。我們相信學員得到的知識和體驗，對個人成長和我們的工作都有長遠價值，是收益極高的投資。此外，我們已要求負責培訓的同事物色恰當的培訓機會，讓我們的工程師能多與各行各業的專家交流，拓寬眼界，也藉此加強我們的知識管理功能。

感謝支持

去年規管服務運作暢順，我謹向業界及其他持份者致意。規管服務的同事也盡心盡力，服務出色，部份同事更多走一步，憑著出色的規管成績贏得多個獎項，我衷心感銘。我很高興見到規管服務各級同事都能緊密合作，相信來年必會再創佳績。



副署長 / 規管服務
薛永恆

The new LEO and BEEO mandate more stringent requirements for lift and escalator safety and buildings energy efficiency respectively. Statutory powers aside, we may also resort to market incentives and administrative measures to motivate asset owners and other stakeholders to improve the quality and safety of infrastructure. Our Lifts Modernisation Programme, for example, which aims to encourage owners to implement modernisation solutions in older lifts such as installing a double brake system, is one of the approaches to making aging assets more safe, reliable and comfortable. As demand for improvement jobs increases, market forces will lead contractors to solicit more work from lift owners and property management companies, reinforcing a culture of improvement and modernisation.

In terms of improving electrical safety, we have begun implementing continuing professional development requirements as a condition for renewal of electrical worker registrations. The decision to adopt such conditions from January 2012 was made in 2011 after thorough consultation with the electrical trade. It represents a significant step for the industry and pioneers the idea that all frontline workers in a trade can be required to undertake continuing professional learning.

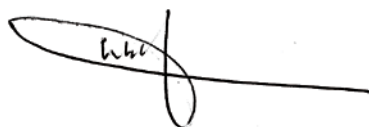
LEARNING AND DEVELOPMENT

Similarly, we expect our own people to pursue continuous training and development. In particular, we are planning to revive certain programmes that put our young engineers in overseas attachment training so that they may gain in-depth understanding of how major systems and facilities, such as those used by our railways, electricity and gas plants, are designed and manufactured. The insight gained is vital to good regulatory work.

For the immersion experience to be worthwhile, these programmes would typically last six to 12 months. We believe the knowledge and experience thus gained will bring long-term benefits to our people and our work, far outweighing the initial investment. We have also tasked our training unit with identifying opportunities for our engineers to interact with experts from different fields in order to broaden their horizons as part of our knowledge management enhancement initiative.

APPRECIATION AND THANKS

I join our Director in expressing our gratitude to the trades and other stakeholders for their support in a year of smooth operations. I also 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 have no doubt this will translate into positive results in the coming year.



Alfred W H Sit
Deputy Director / Regulatory Services

保障公眾安全
**Protecting
Public Safety**







員工為40年樓齡以上、以及其電力裝置允許負載重量不超過100安培的大廈進行巡查，以加強大廈電力安全。

Inspecting buildings over 40 years old and with electrical installations having approved loading of not exceeding 100 amperes, to step up electrical safety of buildings.

電力安全

業界持續進修計劃

電力法例部於2011年的主要成就，是籌備引進「註冊電業工程人員持續進修計劃」。計劃由2012年1月1日開始實施，規定由當日起，註冊電業工程人員必須完成有關的持續進修，方可獲得註冊續期。進修計劃包含兩個單元的培訓，即法例及安全規定及技術知識。所有註冊電業工程人員在遞交註冊續期申請前，必須已完成這兩個單元的培訓。這個經由全面諮詢業界後推出的計劃，對建立本港電業界的持續進修文化，是一大里程碑。

大廈電力安全

電力法例部也推出新措施，加強本港大廈電力安全。首先，為了在業界提倡安全工作的文化，以及避免電力事故引致大廈停電，註冊電業承辦商為大廈的總掣櫃進行定期檢查、測試及領取證明書的工作時，須先截斷電力公司的供電。由2011年12月起，註冊電業承辦商在遞交有關的WR2加簽申請時，亦須一併附上電力公司的停電記錄。

第二，電力法例部現正就40年樓齡以上、以及其電力裝置允許負載重量不超過100安培的大廈，加強執法。全港約有2,200幢這類的大廈。若發現有關大廈有潛在電力安全風險，我們會要求業主為其電力裝置進行定期檢查、測試及領取證明書的工作。

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2011年見輕微上升，電氣產品事故數字則與上年一樣。

電氣產品電磁場標準

由2011年1月1日起，所有進口香港的電氣產品必須符合 IEC 62233或 EN 50366電磁場安全標準。本港在這方面的要求已與國際做法看齊，確保電氣產品發出的電磁場不可超過標準的要求，進一步保障消費者的安全。



一旦發現大廈有潛在電力安全風險，我們會要求業主為其電力裝置進行定期檢查、測試及領取證明書的工作。

Once buildings are identified with potential risk of electrical safety, owners will be required to carry out PITC work.

ELECTRICAL SAFETY

Continuing Professional Development for the Trade

A key achievement of the Electricity Legislation Division in 2011 was in making preparations for the introduction of the Continuing Professional Development (CPD) scheme, which made CPD a condition of registration renewal for all Registered Electrical Workers (REWs) from 1 January, 2012. The scheme provides REWs with a two-module programme of training, covering "legislative and safety requirements" and "technical knowledge", before applying for renewal of registration. Developed in full consultation with the trade, the CPD scheme is seen as a milestone in fostering a continuous training culture for the electrical trade in Hong Kong.

Electrical Safety of Buildings

The Division also made major initiatives to enhance the electrical safety of buildings in Hong Kong. First, with the aim to establishing a safe working culture in the trade and avoiding power interruptions to the buildings due to electrical accidents, Registered Electrical Contractors (RECs) are required to strictly follow safety requirements in carrying out Periodic Inspection, Testing and Certification (PITC) work for main switchboards by suspending the power company's electricity supply. Starting from December 2011, RECs have also been required to provide power suspension records together with WR2 submissions.

Second, the Division is now stepping up enforcement actions in old buildings of more than 40 years of age and with electrical installations having approved loading of not exceeding 100 amperes. There are more than 2,200 such buildings in Hong Kong. Owners of buildings identified with potential risk of electrical safety will be required to carry out PITC works.

Incidents Trend

After several years of steady decline, the number of electrical incidents for fixed electricity installations and third-party damage to electrical supply lines showed a slight increase in 2011. Electrical product incidents remained the same as the previous year.

EMF-compliant Electric Products

The year under review also saw the introduction of a mandatory Electromagnetic Field (EMF) Certificate. From 1 January, 2011 all electrical products imported into Hong Kong have to comply with the new IEC 62233 or EN 50366 electromagnetic safety standards. This brings Hong Kong into line with world standards, ensures that the EMF does not exceed the standards, and delivers public health benefits to local consumers.

善用新媒體

電力法例部於2011年在 Youtube 推出專用頻道，方便公眾隨時看到電氣安全短片，包括政府宣傳片和其他資訊性短片，及專為電業從業員攝製的培訓短片。該部現正籌劃運用更多互動新媒體，向年青一代推廣安全資訊，鼓勵他們以流動手機和平板電腦瀏覽我們網頁上的電力資訊站。

Using New Media

The Electricity Legislation Division set up a dedicated YouTube video channel in 2011 to allow viewers to more easily access a variety of videos on electrical safety. These include Announcements of Public Interest and other informational videos as well as training videos for the trade. The Division is planning to venture further into new, interactive media so as to more effectively reach out to a younger IT-savvy audience and encourage them to browse our Electricity Information Corner on mobile devices.



與業界合作

電力法例部一直與業界保持緊密合作，致力提升電力工作的安全，並為市民提供更佳服務。例如我們就電力公司配電站維修工作，和大廈電力裝置的定期檢查、測試及領取證明書的工作主動作出聯繫，鼓勵電力公司、大廈業主和註冊電業承辦商互相合作，盡量安排上述電力工作能同時進行，從而減少重複停電及對公眾做成的不便。

監察福島核電事件

2011年3月11日，日本發生海嘯巨災，引發福島核事故。福島事故發生後，電力法例部為有關的政策局提供技術支援，並成立專責小組協助局方監察有關情況。

透明度更高

由2011年1月1日起，註冊電業工程人員和註冊電業承辦商，如因不符合法定要求而遭紀律處分，其資料均會上載至機電工程署網頁，以告公眾。此外，電氣安全諮詢委員會年內也開始把會議紀錄上載至機電工程署網頁，以提高透明度，並一如以往，歡迎市民旁聽會議。

其他改善工作

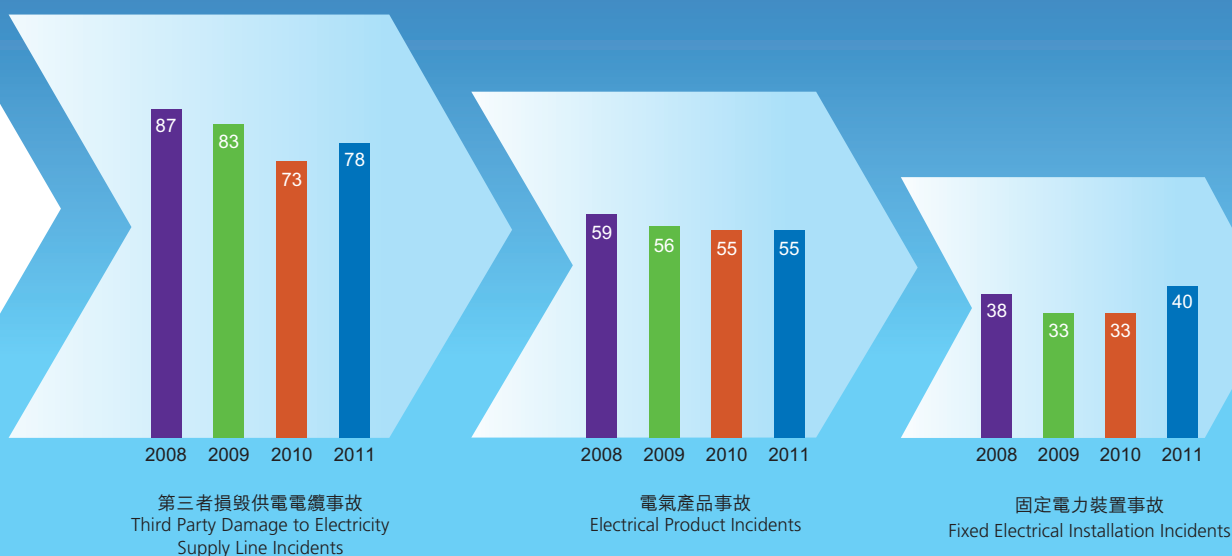
隨著我們在定期檢查、測試及領取證明書工作方面的數據庫日益完善，我們更採用了地理資訊系統，以提升執法工作的效率。此外，我們也在 Youtube 成立了專用頻道，與公眾及業界分享電氣安全資訊及短片。我們會繼續與業界合作，提升電業從業員持續進修的文化，服務市民。



我們採用了地理資訊系統，提升執法工作的效率。

A Geographic Information System helps enhance the effectiveness of PITC enforcement work.

電力事故數目
Electrical Incidents Figures





業界文化轉變

由2012年1月1日起，註冊電業工程人員必須完成持續進修課程，才可申請續期。這對加強本港電業界的持續進修文化是一大里程碑。註冊電業工程人員現時可定期報讀由全港10多個認可機構，包括工會及商會、電力公司、以及學術及專業團體提供的訓練課程。我們的宗旨，是讓業界持續進修，定期學習最新的技術和安全與法例知識。

Cultural Change for the Trade

The Continuing Professional Development (CPD) requirement as a mandatory condition for REW registration renewal, effective 1 January, 2012, is a milestone in fostering a continuous learning culture in the electrical trade in Hong Kong. REWs now regularly attend training courses, which are available from more than ten qualified organisations, including worker unions, contractor associations, the power companies as well as academic and professional institutions. Our aim is to help members of the trade engage in continuous learning and thus regularly update their technical skills and safety and statutory knowledge.



註冊電業工程人員出席電業界持續進修課程，正觀看培訓短片。

Registered Electrical Workers watch a training video that is part of the Continuing Professional Development Scheme.

Working with the Trade

The Division has continued to work closely with the trade to enhance electrical safety and better serve the public. An example was our pro-active efforts to coordinate power sub-station maintenance work and PITC works of buildings. We are encouraging the power companies, building owners and RECs to collaborate with each other so that their electrical work can be carried out simultaneously, thus minimising repeated power suspensions and disruptions to the public.

Fukushima Nuclear Incident Monitoring

The Division provided technical support to the relevant government bureaux in the aftermath of the Fukushima nuclear incident caused by the devastating tsunami in Japan on 11 March, 2011. We have set up dedicated teams to assist the relevant government bureaux in monitoring the situation.

Greater Transparency

As of 1 January, 2011, details of RECs and REWs disciplined for failing to comply with statutory requirements will be made public via the EMSD website. The Electrical Safety Advisory Committee has also enhanced its transparency by making the minutes of its meetings available on the EMSD website. As always, members of the public are welcome to observe the Committee's meetings in person.

Further Improvements

With improvements in the accuracy of PITC database, the Division has adopted a Geographic Information System to enhance the overall effectiveness of PITC enforcement work. We have also set up a dedicated YouTube channel to share safety information and videos with the public and the trade. We continue to strengthen our partnership with the trade in order to foster a continuous learning culture in the industry and better serve the community.



我們定期進行危機及事故處理演練，有時並與業界聯合演練。
We regularly conduct crisis and incident drills, sometimes jointly with the trade.

氣體安全

安全服務獲公務員獎項

氣體標準事務處的兩個氣體安全服務項目，榮獲2011年公務員優質服務獎勵計劃的「監管／執行服務獎」。「健調氣順」隊以風險管理的模式，加強煤氣供氣分喉的安全，並因此而獲頒銀獎。「先知先覺」隊的「多走一步」項目，理順了全港石油氣加氣站的地底氣缸覆驗工程，獲頒銅獎。

氣體事故趨勢

氣體標準事務處留意到近期建造工程及大廈外牆維修工程數量增加及氣體喉管老化。為防止氣體事故趨勢上升，因此以風險管理為本的預防措施及改善工作更不可少，包括支持及監察氣體供應公司更換老化喉管、為有潛在危險的喉管進行風險評估、加強對較高潛在漏氣風險的喉管進行洩漏探測、及敦促喉管擁有人盡快安排更換較高危的鏽蝕喉管等。



氣體標準事務處慶祝其兩個出色的氣體安全服務項目，贏得2011年公務員優質服務獎勵計劃兩個獎項。
The Gas Standards Office celebrates the winning of two awards in the Civil Service Outstanding Service Award Scheme 2011 for two outstanding gas safety initiatives.

GAS SAFETY

Civil Service Award for Safety Initiatives

Two gas safety initiatives by the Gas Standards Office won awards in the Regulatory / Enforcement Service category of the Civil Service Outstanding Service Award Scheme 2011. The “Reviving Gas” team, which adopted a risk-based approach to enhancing the safety of town gas risers on buildings in Hong Kong, secured the Silver Award; while the “One Extra Step” initiative, which ensures the efficient execution of underground tank revalidation works in LPG gas filling stations throughout the territory, won the Bronze Award.

Gas Incidents Trend

The Gas Standards Office noticed that there was an increase in recent infrastructure and external wall repair projects throughout Hong Kong and gas pipes were aging. To prevent an upward gas incidents trend, further risk-based preventive and rectification actions are therefore called for. These include supporting and monitoring gas supply companies in replacing aged pipes, conducting risk-based assessment of potential pipe leaks, enhancing leakage survey of gas pipes that are considered more susceptible to leakage, and urging riser owners to replace corroded risers.



獲獎項目：「健調氣順」使供氣分喉更安全

「健調氣順」隊以風險管理的模式，宣傳氣體安全並敦促檢修煤氣供氣分喉——即把煤氣從主喉帶進至屋內的外牆喉管。大部份的供氣分喉事故，都是因缺乏維修保養導致的鏽蝕而引起的。氣體標準事務處與煤氣公司合力引進多項措施，包括推出立管健康指數，以找出高風險的大廈、加強安全巡查、及敦促業主進行改善工程等。我們同時進行策略性宣傳，鼓勵業主進行定期安全檢查。

「健調氣順」隊自2007年開展工作以來，煤氣供氣分喉事故顯著減少，項目更於2011年公務員優質服務獎勵計劃的「監管／執行服務獎」獲得銀獎。

“Reviving Gas” for Riser Safety Wins Award

Our “Reviving Gas” team has adopted a risk-based approach to promote gas safety and enhance timely maintenance and repair of town gas risers – the external pipes that deliver gas from the utility company’s gas mains to users within a building. Most riser incidents are caused by corrosion due to lack of maintenance. Working with Towngas, the Gas Standards Office has introduced multiple ongoing measures such as use of the Riser Health Index to identify high-risk buildings, stepping up safety inspections, and urging property owners to conduct improvement works. Strategic communications are being used to encourage owners to conduct regular safety inspections.

As a result of the efforts of “Reviving Gas”, riser incidents have been substantially reduced since 2007. The initiative also won the Silver Award in the Regulatory / Enforcement Service category of the Civil Service Outstanding Service Award Scheme 2011.



保障公眾安全 Protecting Public Safety

督察正為屋邨中央管道石油氣系統的地底石油氣缸，進行檢測和覆驗。
Inspectors check and re-validate an underground tank in a housing estate with piped LPG supply system.

聚焦定期安全檢查

定期安全檢查是2011年的重點項目。我們鼓勵住宅用戶每18個月安排一次氣體安全檢查，而商戶則每12個月一次。為確保氣體用戶定期進行檢查，我們已敦促煤氣公司和石油氣供應公司及其代理商，加強與客戶溝通，使成功入屋進行定期安全檢查的數字上升。定期安全檢查是預防氣體事故的關鍵，我們將會繼續大力推動。

業界溝通

與業界保持緊密溝通，對促進業界守法和良好作業方式都十分重要。以石油氣車輛為例，氣體標準事務處就特別攝製了一套維修及保養石油氣車輛重點重溫的短片，供石油氣車輛維修技工參考。同時，我們也把與業界有關的資訊，定期上載機電工程署網頁，如專用石油氣加氣站的車用石油氣的上限價格和石油氣樣本化驗結果等。我們也正加強青衣石油氣庫的稽核程序，以更有效地監察其硬件和管理方法的表現。



屋邨的地底石油氣缸覆驗完成後，工人進行善後工作。
Workers carry out follow-up works after re-validation of the housing estate underground LPG tank.

Focus on Regular Safety Inspection

Regular Safety Inspection (RSI) was a focus in 2011. We recommend that domestic users arrange for an RSI once every 18 months and commercial users do so every 12 months. To ensure that users follow this schedule, we have urged Towngas and the LPG supply companies and their dealers to follow up more closely with their customers; as a result, the RSI success rate has improved. RSI is the key to incident prevention and we will continue to rigorously promote it.

Trade Communication

Frequent communication with the trade is important to facilitate compliance and good practices. In LPG vehicle maintenance, for example, the Office has produced a video that is a summary of repair and maintenance of LPG vehicles as a reference for LPG vehicle mechanics. At the same time, we promote transparency by regularly updating information such as the ceiling prices of auto LPG at dedicated LPG filling stations and gas quality test data on the EMSD website. The Office is also working on enhancing audit procedures at the Tsing Yi LPG terminals for better monitoring of hardware and management practices.



氣體安全諮詢委員會會議。
Gas Safety Advisory Committee meeting in progress.



獲獎項目：「多走一步」理順石油氣加氣站工作

《氣體安全條例》要求全港62個石油氣加氣站的地底石油氣缸，必須定期覆驗。這工作如處理不善，可引致交通擠塞，並對石油氣的士和小巴做成不便。

有見及此，氣體標準事務處於2008年推出「多走一步」行動，為快要進行的氣缸覆驗工作，作出周詳計劃和準備。我們研究了幾個石油氣加氣站的用家行為模式，結論是在覆驗工程期間，加氣服務必須暫停。然後我們著手籌備一個全面的工作計劃，包括與石油氣車輛業界就計劃中的暫停供氣事宜作事先溝通，並與警方及運輸署聯絡，作出緊急應變安排，而於覆驗工程進行期間，把要加氣的石油氣車輛疏導往鄰近的加氣站。

至今為此，全港有30多個石油氣加氣站已完成氣缸覆驗工作，工程引起的干擾也減到最少。「多走一步」行動也贏得2011年公務員優質服務獎勵計劃「監管／執行服務獎」的銅獎。

“One Extra Step” for LPG Filling Station Work Wins Award

The Gas Safety Ordinance requires the underground tanks in all 62 LPG filling stations in Hong Kong to be checked and re-validated. If not well managed, this work could lead to major traffic disruptions and inconvenience to LPG taxis and minibuses.

The Gas Standard Office thus launched the “One Extra Step” initiative in 2008 to plan and prepare for the re-validation process. The Office studied user patterns at LPG filling stations and concluded that gas filling services must be suspended during re-validation works. A comprehensive works plan was then developed. It included prior communication with the LPG vehicle trade about the planned suspensions, liaison with the Police and Transport Department to put in place necessary contingency measures, and the diversion of LPG vehicles to nearby stations while re-validation work is in progress.

To date, more than 30 LPG stations have completed re-validation works with minimum disruption. The initiative also won the Bronze Award in the Regulatory / Enforcement Service category of the Civil Service Outstanding Service Award Scheme 2011.



「多走一步」行動，就是為了向全港62個石油氣加氣站提供良好的氣體安全服務。圖為石油氣加氣站。
One of the 62 LPG fillings stations in Hong Kong that the “One Extra Step” gas safety initiative aims to serve.

機械安全

《升降機及自動梯條例》草案進展順利

去年工作的一大進展，是《升降機及自動梯條例》草案在立法會進展順利。至2011年底，條例草案委員會已完成大部份審議工作，預計可於2012年首季恢復二讀。如條例草案最終如期於2012年4月完成立法程序，本港的升降機和自動梯安全的規管架構將得以大為加強，而有關的安全責任，也將較平均地由升降機和自動梯擁有人、管業公司、承辦商、工程師和工程人員共同分擔；一旦違例，罰則也較重。

註冊自動梯承辦商表現評級

機電工程署自2009年6月推出註冊升降機承辦商表現評級制度以來，業界表現的透明度大為提高。一般法例部於2011年9月，將評級制度推展至註冊自動梯承辦商，即是說，自動梯擁有人和大廈管業公司，可隨時取得有關註冊自動梯承辦商的表現評級資料，作為選擇承辦商的參考。

重建市民對自動梯安全的信心

2011年北京發生一宗地鐵自動梯梯級突然倒行的事故，由於香港有80多部同一型號的自動梯，事件引起市民關注。一般法例部馬上行動，巡查該批自動梯，並未發現機械方面有異常情況。我們的迅速行動，有助公眾恢復對自動梯安全的信心。

優化現有升降機

我們持續鼓勵優化現有升降機的工作，重點是那些安裝超過廿年的升降機。去年的工作，包括向主要持份者如升降機擁有人、承辦商和管業公司派發《優化升降機指引》、舉行多場座談會，深入闡釋優化工程如何能將現有升降機變得更安全、可靠和舒適。



註冊自動梯承辦商表現評級制度自2011年9月推出以來，提高了自動梯維修保養業的透明度。

The Contractors' Performance Rating Scheme for registered escalator contractors introduced in September 2011 has enhanced the transparency of the escalator maintenance trade.

MECHANICAL SAFETY

Lifts and Escalators Bill Makes Good Progress

A major step forward in 2011 was the progress of the Lifts and Escalators Bill through the Legislative Council (LegCo). The Bills Committee had substantially finished vetting the Bill by the end of year, with resumption of the second reading of the Bill expected in the first quarter of 2012. With the completion of the legislative procedure expected in April 2012, the community will soon be benefitting from a strengthened regulatory framework, under which the responsibilities for lift and escalator safety will be shared in a more balanced manner among owners, management companies, contractors, engineers and workers, with heavier penalties for offences.

CPR for Registered Escalator Contractors

The Contractors' Performance Rating (CPR) Scheme for registered lift contractors, which was introduced by EMSD in June 2009, has significantly contributed to transparency in the performance of the trade. In September 2011, the General Legislation Division extended the CPR scheme to registered escalator contractors. This means that escalator owners and building management agents can now access to performance information for choosing an appropriate escalator contractor.

Restoring Confidence in Escalator Safety

An escalator incident happened in Beijing in July 2011 in which the steps of a subway escalator suddenly reversed their travelling direction. The incident caused some concern in Hong Kong as more than 80 escalators of the same model were in use in the territory. The Division took immediate steps to inspect these escalators and found no mechanical abnormalities. Our prompt response helped restore public confidence in escalator safety.

Existing Lifts Modernisation

Our efforts to promote lifts modernisation continue, with a focus on lifts installed more than 20 years ago. We have distributed Guidelines for Modernising Existing Lifts booklets to all key stakeholders, including lift owners, contractors and building management companies, and have also held seminars to explain in detail how modernisation measures can take existing lifts to a new level of safety, reliability and comfort.



《升降機及自動梯條例》草案專責小組會議。小組對條例的草擬和立法工作都貢獻良多。

A meeting of the Task Force on the Lifts and Escalators Bill. The Task Force has contributed significantly to the drafting and legislation process.

保障公眾安全 Protecting Public Safety

本港兩個主題公園於2011年推出了多個全新機動遊戲機，遊人正樂在其中。
Visitors enjoying new rides launched in 2011 at Hong Kong's two theme parks.

新機動遊戲機啟用

兩個主題公園於2011年內推出共8個全新的機動遊戲機，使本港機動遊戲機的種類更趨豐富。雖然部份新遊戲機在運作時出現初期問題，但經微調後系統已運作正常。

海洋公園年內發生了數宗機動遊戲機暫停事故，園方與機電工程署商討後推出新公眾通報指引，以提高有關事故的透明度及更有效向公眾通報。如機動遊戲機發生機件或運作故障而導致影響該機的安全運作，海洋公園會採取一系列通知公眾的措施，包括即時於公園網站刊登通告，和於公園正門貼出告示等，讓遊人即時得悉有關機動遊戲機關閉的消息。

昂坪360事故

在2011年12月，昂坪360纜車發生了3宗輕微事故，引致纜車服務暫停。該3宗事故的成因分別如下：昂坪站內牽引纜滑輪的襯片損蝕；東涌站內車廂運輸系統的小型滑輪軸承出現故障；及昂坪站內車廂調距器出現故障。以上事故發生後，昂坪360已即時更換相關部件，使纜車系統回復正常服務。昂坪360並按機電工程署的指示，增強纜車每天的例行巡查工作、檢查所有纜車設備、及全面檢討纜車的預防性保養，以加強纜車服務的可靠性。



未來工作

《升降機及自動梯條例》草案料可於2012年頭通過，一般法例部現正加緊籌備立法後的執法工作，例如我們需為以千計的升降機工人進行註冊，並進行廣泛的公眾教育及宣傳，讓業界和市民明白新法例下，各方面就升降機和自動梯安全要負上的法律責任。同時，我們也要把原有的電腦系統升級，方便執行新條例。此外，我們會繼續監察機動遊戲機和纜車系統，並推動現有升降機進行優化工程。



昂坪360纜車在2011年年底發生了3宗事故後，審視了系統的維修工作。
Ngong Ping 360 undertook a review of the system's maintenance procedures after three incidents in December 2011.



優化現有升降機講座

一般法例部於2011年出版《優化升降機指引》後，舉辦了一連串講座，讓業界和物業管理公司進一步了解有關詳情。我們為與會者解釋了指引內推介的多種加強舊式升降機安全度的方案，例如安裝雙重制停系統、加裝防止機廂不正常移動的裝置、及加裝防止機廂向上超速的裝置等。我們更向與會者強調，只要有適當的保養維修和定期檢驗，現有升降機已可確保安全，但與此同時，也有很大的改善空間，而有關的優化工程建議，則可使現有升降機運作得更安全、可靠和舒適。我們將於2012年舉辦更多講座。

Lift Modernisation Briefings

Further to publishing *Guidelines for Modernising Existing Lifts* in 2011, the General Legislation Division held a series of briefings for the trade and property management companies. Our officers explained the solutions we recommend installing to make existing lifts safer, such as a double brake system, an unintended car movement protection device, and an ascending car overspeed protection device. The audience was reassured that existing lifts, if properly maintained and regularly examined, are safe, though there is room for improvement. The suggested solutions aim to make existing lifts safer and more reliable and comfortable. More briefings are planned for 2012.





加強升降機承辦商表現評級制度評分法

為了進一步加強於2009年6月推出的註冊升降機承辦商表現評級制度，我們於2010年與業界合作，修改了有關的評分法，由2011年2月開始實施新的評分法。新的評分法以100分為滿分，比以前的10分滿分為多。100分的表現得分評級由兩部份組成：保養得分評級和安全得分評級。保養得分評級反映承辦商的定期保養表現，而安全得分評級則反映承辦商的安全表現。新評分制就承辦商在各方面的表現提供了更多資訊，而且新評分法的分數拉闊了，更能顯示不同承辦商表現的細微分別。

New Ratings for Lift Contractors' CPR

To enhance the Contractors' Performance Rating (CPR) Scheme for registered lift contractors introduced in June 2009, we revised in 2010 the rating methodologies of the scheme in collaboration with the trade. Implemented in February 2011, the new rating system has a full mark of 100, as compared to 10 previously. The 100 marks comprise two parts, the maintenance index and the safety index. The maintenance index reflects the contractor's performance in routine maintenance, while the safety index reflects the contractor's safety performance. The new ratings give more information about contractor performance in different aspects of their work. With a wider marking range, the new rating system also expresses finer differentiations in different contractors' performances.



New Rides Launched

The two theme parks launched a total of eight new amusement rides in 2011, significantly boosting Hong Kong's amusement ride portfolio. Though some new rides experienced minor teething problems in early operational stage, their operation were resumed normal after minor system adjustment.

A number of ride stoppages at Ocean Park have led it to implement additional notification protocols after discussion with EMSD. For instance, if a ride experiences mechanical or operational failure which may affect its safe operation, the Park will immediately post a notice on the corporate website and at its main entrance, among other measures to inform guests about the closure.

Ngong Ping 360 Incidents

Three incidents led to temporary suspension of service of the Ngong Ping 360 in December 2011. The three incidents were caused respectively by: partial wear of the lining of the haul rope sheave in the Ngong Ping Terminal; a fault at a small scale roller bearing of the cabin transportation system in the Tung Chung Terminal; and a fault at the cabin spacer of the Ngong Ping Terminal. In all three instances the faulty parts were promptly replaced and the normal service of the cable car was resumed without undue delay. In addition, EMSD instructed Ngong Ping 360 to enhance daily routine inspection of the ropeway, examine the entire cable car system, and conduct a comprehensive review of the maintenance regime of the cable car installation, in order to enhance the service reliability of the ropeway.

Tasks Ahead

The Division has been gearing up to implement the Lifts and Escalators Bill, which is expected to be passed by LegCo during 2012. We will need to be ready to promptly register thousands of lift workers and to launch an extensive publicity programme to educate the trade and the public about the distribution of responsibilities for lift and escalator safety under the new ordinance. The Division's LEO computer system will be upgraded to help us enforce the new ordinance. At the same time, we will continue to monitor rides and ropeway systems, alongside ongoing efforts to promote the modernisation of aging lifts.



主題公園的另一新機動遊戲機。
Another new ride in a theme park.

保障公眾安全 Protecting Public Safety



我們的工程師進行列車定期安全檢查。
Our engineer carries out routine safety inspection in a train.

鐵路安全

檢討港鐵標準和做法

香港鐵路有限公司（港鐵公司）於2011年披露了自2008年以來發生的14宗路軌裂縫事故，促使港鐵公司進行一次全面的評估，以找出港鐵公司在路軌採購、路軌品質控制及檢查與維修方面，與路軌裂縫事故的關係。港鐵公司邀請了澳洲 Monash University (MU) 屬下的 Institute of Railway Technology 進行研究，並將港鐵公司的做法與其他鐵路營運者的做法比較。機電工程署也委任了英國鐵路監管局 Office of Rail Regulation (ORR) 就MU的報告進行獨立檢視。

MU 的報告指出，港鐵公司在管理路軌裂縫風險方面的整體表現，跟世界其他鐵路營運者相若，但建議港鐵公司在物料供應、路軌焊接和無損探傷測試各方面的工序和測試，應採納最新的歐洲標準。ORR 與機電工程署經審核 MU 報告後，也同意港鐵公司應採納最新的歐洲標準。此外，機電工程署也建議港鐵公司應為每一批付運到港的路軌設備進行抽樣測試，以確保路軌設備在運送過程中沒有損壞。

各項相關建議已被港鐵公司採納，並為立法會交通事務委員會鐵路事宜小組委員會所接受。



港鐵公司與鐵路科同事，於定期聯合工作會議後合照。
Staff of MTRCL and Railways Branch after a regular joint working group meeting.



鐵路科人員測試港鐵新列車。2011年有7列新列車已經付運。
Railways Branch staff testing one of seven new MTR trains delivered in 2011.



為港鐵新列車進行詳細測試。
Detailed testing and inspecting in a new MTR train.

RAILWAY SAFETY

MTR Standards and Practices Review

A spate of 14 rail breakage incidents since 2008 disclosed in 2011 prompted a comprehensive assessment of the standards and practices of MTR Corporation Limited (MTRCL) to assess how rail procurement and quality control and the inspection and maintenance of rails relate to rail breakages. MTRCL engaged the Institute of Railway Technology at Monash University (MU), Australia to carry out the study and compare its practices with those of other railway operators. EMSD also commissioned the Office of Rail Regulation (ORR) of the United Kingdom to independently review the consultancy report.

The MU report found that the overall performance of MTRCL in managing rail breakage risks was comparable to that of other similar rail systems worldwide, but recommended that the

latest European standards should be adopted for all procedures and tests in respect of material supply, rail welding and non-destructive testing. Both ORR and EMSD, after scrutinising the MU report, agreed that MTRCL should adopt the latest European standards. In addition, EMSD also recommended that MTRCL should conduct random inspections of items within each batch of rail components shipped to Hong Kong to ensure that no damage has occurred during transit.

The various recommendations were adopted by MTRCL and accepted by the LegCo Panel on Transport's Subcommittee on Matters Relating to Railways.



獨立監察

2011年初發生的路軌裂縫事故，引起了公眾的關注。港鐵公司因此委託了澳洲的 Monash University (MU) 進行獨立研究，檢視其路軌採購、路軌品質控制及檢查與維修方面的標準和做法。鐵路科審核了MU的研究報告，更委託英國鐵路監管局就報告涵蓋的範圍和採用的方法是否恰當，作出詳細檢視。我們也審視了港鐵公司就落實MU報告的建議進度表，並作出額外的改善建議，發揮了獨立監察的功能。

Independent Oversight

The rail breakage incidents in early 2011 caused some concern among the public. In response, MTRCL commissioned Australia's Monash University (MU) to independently study its standards and practices with regard to rail procurement, quality control, inspection and maintenance. The Railways Branch scrutinised the MU report and engaged the UK Office of Rail Regulation to critically review it to ensure that its scope and methodology were appropriate. We examined the programme drawn up by MTRCL to implement the recommendations in the MU report, and made additional recommendations for improvement, thereby discharging our regulatory duty as an independent oversight body.



保障公眾安全 Protecting Public Safety

港鐵車廠內，現有列車和新列車並排候命。

MTR's existing and new trains side by side in depot, ready for service.



九龍灣港鐵站自動月台閘門，於2011年完成安裝。

Automatic Platform Gates completed in 2011 at the Kowloon Bay MTR station.

港鐵新列車與自動月台閘門

2011年另一重點是港鐵公司新列車成功通過測試，並投入服務。港鐵公司於2008年訂購了10列新列車，以提升現時觀塘綫、荃灣綫、港島綫和將軍澳綫的載客能力。至2011年底，共有7列列車已經付運。鐵路科一直密切監察新列車的安全及表現測試，也曾派員親往長春車廠考察，確保列車符合安全標準。2011年內，我們完成了兩列新列車的測試，而該兩列新車已於2011年12月在觀塘綫投入服務。

港鐵公司於2011年，也為8個尚未安裝自動月台閘門的市區綫地面港鐵站完成安裝工程，包括觀塘、牛頭角、九龍灣、葵涌、葵芳、荃灣、杏花邨和柴灣。下一輪的自動月台閘門安裝工程，將包括馬鞍山綫和東鐵綫車站。至於新鐵路의沿綫車站，則會預先安裝自動月台閘門或月台幕門。

新一代電車

電車改善工作去年持續進行。香港電車有限公司於2011年11月，推出全新一代的電車。新型號電車結合了現代化的內部設計與傳統車身外貌，改用更輕更堅固的鋁合金車架，並加強安全設施，包括增添閉路電視供車長觀察乘客上車情況和更新駕駛器以方便車長操作、以及其他設施讓乘客更舒適和獲取更多資訊。電車公司的160多部載客電車，將陸續改裝成新型號電車。

高鐵進展

鐵路科就廣深港高速鐵路香港段的設計審批工作，正按計劃進度進行，審批範圍包括消防、通風和各種電子與通訊系統。香港段的西九龍總站建造工程也於2011年展開，其餘的高鐵工程合約，預料也將於2012年批出。鐵路科會繼續監察所有安全關鍵系統設計，並向港鐵公司就高鐵的獨立安全審核內容提供意見。

國際鐵路安全會議

國際鐵路安全會議匯聚各國的鐵路安全專家，交流經驗以促進鐵路安全。鐵路科於2010年加入了國際鐵路安全會議並成為核心小組成員，顯示我們非常重視鐵路安全，並藉此加強交流學習，務求緊貼國際鐵路安全法規和營運標準的最新發展。

展望來年，鐵路科會繼續留意歐洲鐵路局在制訂共同安全指標方面的進展，並會為本港鐵路安全，發展一套標杆數據及關鍵表現指標。



審批新型號電車

香港電車有限公司推出的新型號電車，是其營運現代化計劃的一部份，我們在2011年審批了新型號電車。為使乘客更安全舒適，新電車改用更輕的鋁合金車架和交流電牽引發動機，並裝上自動襟翼式閘門、閉路電視、和符合人體力學設計的座椅。至2011年12月，已有4部新型號電車通過測試並投入服務。

New Tram Vetting

During 2011 we vetted the safety features of new tram cars designed by Hong Kong Tramways Ltd as part of a programme to modernise its operations. To enhance the safety and comfort of passengers, the new tram cars have a lighter aluminium body and feature AC traction motors, automatic flap entry gates, CCTV and ergonomically designed seats. Four new trams had been tested and put into service before the end of December 2011.





新一代電車於2011年11月推出，結合了現代化內部設計與傳統車身外貌。
The new-generation tram launched in November 2011, combining a modern interior with a traditional exterior.



新型號電車的新駕駛器。
The new driving interface in the new tram.

New MTR Trains and APGs

Another highlight in 2011 was the successful commissioning of new trains. MTRCL purchased ten new trains in 2008 to strengthen the fleet serving the Kwun Tong, Tsuen Wan, Island and Tsang Kwan O lines. In total, seven trains were delivered in 2011. The Railways Branch has been monitoring the various safety and performance tests to which the new trains are subject. We also previously made site visits to the manufacturer in Changchun to ensure compliance with safety standards. Testing of two new trains was completed during the year and these were put into service on the Kwun Tong Line in December 2011.

The installation of Automatic Platform Gates (APGs) at the remaining eight above-ground MTR urban line stations, namely Kwun Tong, Ngau Tau Kok, Kowloon Bay, Kwai Hing, Kwai Fong, Tsuen Wan, Heng Fa Chuen and Chai Wan was completed in 2011. The next phase of installation will encompass the Ma On Shan Rail and East Rail stations. All stations on new heavy rail lines will have APGs or Platform Screen Doors installed.

New-generation Tram Launched

Tram improvement works continued in 2011. Hong Kong Tramways Limited launched its new-generation tram in November 2011. Combining a modern interior with a traditional exterior, the new trams have a lighter and more durable aluminium structure and improved safety features, including CCTV to monitor boarding and a new driving interface for better control, as well as other new features to enhance passenger comfort and information. The entire fleet of over 160 trams will eventually be renovated.

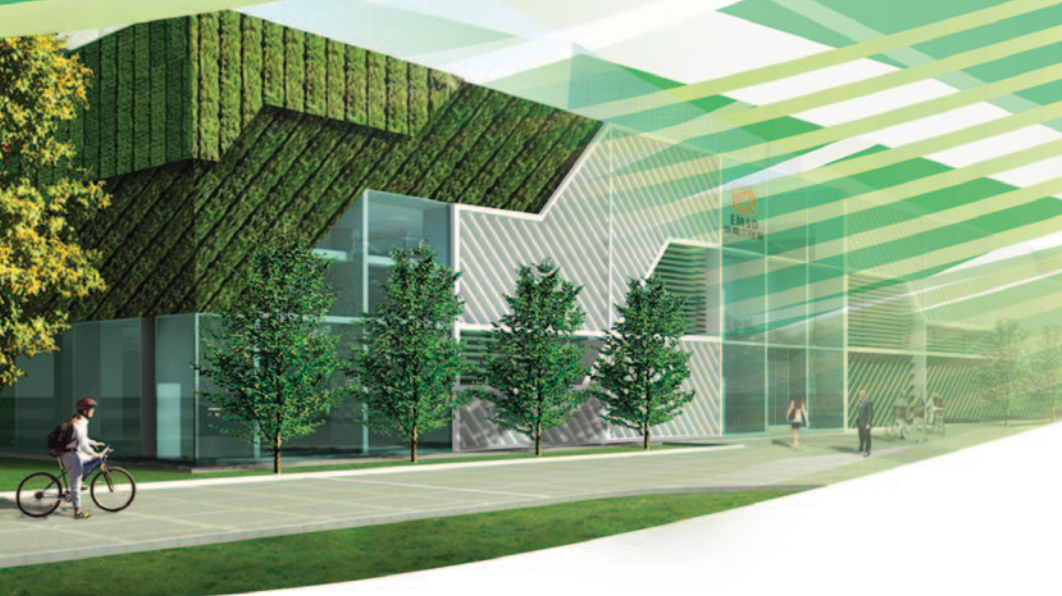
XRL Progress

The Railways Branch's design vetting work for the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) is progressing as scheduled, covering fire services, ventilation and various electronic and communication systems. Construction of the West Kowloon Terminus also commenced in 2011 and all remaining XRL-related contracts are expected to be awarded in 2012. The Railways Branch will continue to monitor the design of safety-critical systems and will also provide input to MTRCL on the scope of the independent safety assessment of XRL.

International Railway Safety Conference

The International Railway Safety Conference (IRSC) is a key forum that brings together railway safety professionals from around the world to exchange information, experiences and lessons learnt to improve railway safety. The Railways Branch joined the IRSC Core Group in 2010 as a member to demonstrate our commitment to railway safety and to keep ourselves abreast of the latest developments in international railway safety regulations and operational standards.

Looking ahead, the Railways Branch will continue to monitor the progress of the European Railway Agency in developing common safety indicators. It will also seek to develop benchmarking data and key performance indicators for railway safety in Hong Kong.



推廣能源效益及節能

Promoting Energy Efficiency and Conservation





機電工程署總部大樓天台的太陽能光伏系統，不少本地及海外團體已親臨參觀。
Numerous local and overseas delegations have visited the photovoltaic system on the EMSD headquarters rooftop.

推行強制性能源效益標籤計劃第二階段

2011年的主要成績，是順利推行強制性能源效益標籤計劃第二階段。第二階段已於2011年9月起全面推行，除第一階段涵蓋的空調機、冷凍器具和緊湊型熒光燈以外，第二階段更涵蓋洗衣機和抽濕機。由於零售商和進口商的大力支持，計劃自2009年11月推行以來，業界的守法比率一直很高，而由於業界對計劃有相當高的認知度，執法也頗順利。

提倡電動車

能源效益事務處近年為政府多個環保項目提供支援，其中之一是提倡使用電動車，以改善路邊空氣質素和減少溫室氣體排放。為了加快設立本港電動車充電設施，能源效益事務處出版了有關設立電動車充電設施的技術指引。我們也協助安排2011年10月假香港科學園舉行的亞太區經濟合作組織「電動車的能源及綠色運輸優點」研討會。研討會有來自15個亞太經合組織成員的代表參加，會場並同場展出各款電動車，供公眾參觀。

籌備推行《建築物能源效益條例》

年內另一成績，是為於2010年11月已獲立法會順利通過的《建築物能源效益條例》刊發兩份實務守則，分別為《建築物能源效益守則》和《能源審核守則》。兩份守則的2012年版本已於2012年2月刊憲並馬上生效，守則的規定也比早期版本為高。

《建築物能源效益守則》和《能源審核守則》為《建築物能源效益條例》於2012年9月開始的全面推行訂定了技術規定。《建築物能源效益守則》為《建築物能源效益條例》所訂明的四類屋宇裝備裝置指明能源效益標準和規定，而《能源審核守則》則為能源審核訂出技術規定。

《建築物能源效益條例》是本港首條有關建築物之能源效益的法例，能源效益事務處因此已加緊有關的宣傳工作，務求協助大廈業主、物業管理公司和其他持份者理解條例的主要條款和規定。到目前為止，以業界為本的宣傳工作包括有技術講座和交流簡報會等。到2012年，更會推出電視和電台廣告，以提升市民大眾對《建築物能源效益條例》的認知。



亞太區經濟合作組織「電動車的能源及綠色運輸優點」研討會於2011年10月在香港科學園舉行。
APEC Workshop on Energy and Green Transport Benefits of Electric Vehicles held at Hong Kong Science Park in October 2011

MEELS Phase 2 Implemented

A major achievement in 2011 was the smooth implementation of Phase 2 of the Mandatory Energy Efficiency Labelling Scheme (MEELS). Coming into force in September 2011, it added washing machines and dehumidifiers to the room air conditioners, refrigerating appliances and compact fluorescent lamps covered under Phase 1. Thanks to the support of retailers and importers, the trade's compliance rate has been very high ever since the implementation of MEELS Phase 1 in November 2009. The trade's awareness of the Scheme is also high, facilitating smooth enforcement.

Promoting Electric Vehicles

The Energy Efficiency Office (EEO) has supported the Government on a number of green initiatives in recent years. Among ongoing efforts is a drive to promote the wider adoption of electric vehicles (EVs) in order to help improve roadside air quality and reduce greenhouse gas emissions. For example, to expedite the development of an EV charging infrastructure in Hong Kong, EEO promulgated technical guidelines on charging facilities for EVs. We also helped organise the APEC Workshop on Energy and Green Transport Benefits of Electric Vehicles in October 2011. Held at the Hong Kong Science Park, it drew delegates from 15 APEC economies and included an exhibition of EV vehicles, which was open to the public.

Preparing for BEEO Implementation

Another achievement was the publication of two Codes of Practice relating to the Buildings Energy Efficiency Ordinance (BEEO) passed by the Legislative Council in November 2010. They are the Code of Practice for Energy Efficiency of Building Services Installation, also known as the Building Energy Code or BEC, and the Code of Practice for Building Energy Audit, also known as the Energy Audit Code or EAC. Both are 2012 Editions gazetted in February 2012 when they took immediate effect, with more stringent requirements than earlier versions.

The BEC 2012 and EAC 2012 provide technical requirements to support the full implementation of the BEEO in September 2012. The BEC specifies the energy efficiency standards and requirements for the four key types of building services installations prescribed in the BEEO, while the EAC sets out the detailed technical requirements in respect of energy audits under the BEEO.

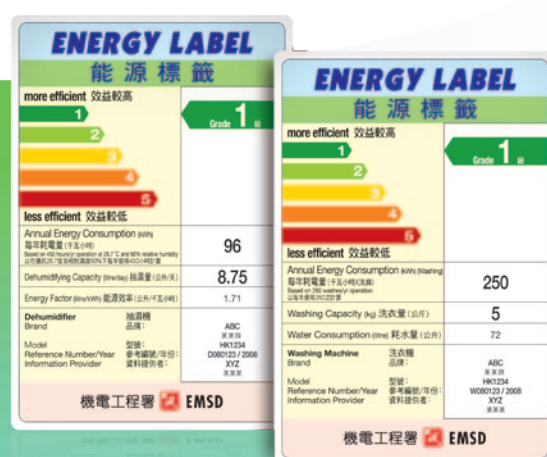
As the BEEO is the first buildings-related energy efficiency legislation in Hong Kong, the EEO has stepped up publicity to assist building owners, property management companies and other stakeholders in familiarisation with its key provisions and requirements. This trade-focused programme has so far included technical talks and interactive briefings. TV and radio advertisements will also be launched in 2012 to raise public awareness of the BEEO.

回應消費者需求

強制性能源效益標籤計劃第二階段已於2011年9月全面推行，把抽濕機和洗衣機也涵蓋在計劃之內。由於春天是購買抽濕機的高峰期，傳媒和消費者由2011年底至2012年初，對抽濕機能源標籤的資訊特別有興趣。為此，我們加強了宣傳工作，接受多個傳媒訪問，幫助消費者善用能源標籤上的數據，作出明智的消費選擇。

Responding to Consumer Needs

Phase 2 of the Mandatory Energy Efficiency Labelling Scheme (MEELS) came into force in September 2011, adding dehumidifiers and washing machines to the Scheme. As spring is the peak demand season for dehumidifiers, media and consumer attention was focused on learning more about the new energy labels from late 2011 to early 2012. Accordingly, our team stepped up publicity efforts and gave various media interviews to help consumers use the energy efficiency data on the labels to make informed purchase decisions.



巡查淡水冷卻塔

能源效益事務處在按《公眾衛生及市政條例》獲食物及環境衛生署署長授權後，由2011年4月起，巡查全港淡水冷卻塔及進行水樣本檢測，根據該條例就受污染的冷卻塔進行規管工作。至2011年底，我們已檢測了從498幢大廈搜集的560個淡水冷卻塔水樣本，發現其中27個水樣本驗出的退伍軍人病菌數量，等於或超過每毫升1,000菌落或以上的上限值，並已按《公眾衛生及市政條例》發出「妨擾事故通知」，有關業主已馬上進行清潔及消毒工作。此外，機電工程署網頁，也定期上載有關淡水冷卻塔巡查和水樣本檢測的最新數字和資訊。

在進行巡查和水樣本檢測工作的同時，能源效益事務處也為發展商與物業管理公司舉行簡報會，闡釋淡水冷卻塔的正确設計、操作和維修保養方法，反應相當熱烈。

新的淡水冷卻塔規管架構及巡查行動，至今已產生有力的阻嚇作用，有助減低退伍軍人症的公共衛生風險。我們的目標，是於2011 / 12年度進行800次淡水冷卻塔巡查。

區域供冷系統進展良好

啟德發展區的區域供冷系統第一期和第二期施工順利，現正進行水管鋪設工程和建造中央供冷機房，包括毗連機電工程署總部大樓的機房。

郵輪碼頭將於2013年啟用，預計供冷系統屆時可為郵輪碼頭的空調系統供應冷水，配合第一個泊位落成啟用。能源效益事務處已開始為區域供冷系統未來的營運進行初步籌劃，探討各種技術參數和財務模式，並研究製訂用戶收費計劃的方法。



由2011年4月起，機電工程署負責規管全港淡水冷卻塔的設計、操作和維修保養。

EMSD has begun to regulate the design, operation and maintenance of fresh water cooling towers in Hong Kong since April 2011.



淡水冷卻塔巡查和透明度

我們的規管工作高度透明，方便公眾取得重要的數據和資料作為參考。例如在監察規管淡水冷卻塔的同時，我們每半個月都在機電工程署網頁公布有關退伍軍人病菌數量的數字，還列出過去3個月接獲「妨擾事故通知」，而其淡水冷卻塔水樣本驗出退伍軍人病菌數量等於或超過每毫升1,000菌落或以上的大廈名單和地址。這些措施既可讓公眾掌握資訊，又可加快業主的消毒行動，可謂一石二鳥。

Cooling Tower Inspections and Transparency

In our regulatory work, our approach is to maintain a high level of transparency to give the public easy access to key data and reference information. As we discharge our duty to monitor and regulate fresh water cooling towers, for example, we also publish relevant Legionella bacteria count (LBC) statistics on the EMSD website every half month. Also listed are the names and locations of buildings served with nuisance notices in the past three months for having cooling towers with an LBC equal to or above the upper threshold of 1,000 cfu/ml. These measures serve the dual purpose of keeping the public informed and expediting decontamination works by the building owners concerned.



有關全港淡水冷卻塔巡查和水樣本檢測的數字和資訊，機電工程署網頁每半個月均上載更新。

Fresh water cooling tower inspection and water sample test results and statistics are updated every half month on the EMSD website.

Fresh Water Cooling Tower Inspections

With delegated powers from the Director of Food and Environmental Hygiene under the Public Health and Municipal Services Ordinance (PHMSO), EEO began inspecting fresh-water cooling towers and conducting related water sample tests in April 2011 for regulatory control of contaminated cooling towers under the PHMSO. By the end of the year, 560 water samples from 498 buildings had been tested, of which 27 were found with Legionella bacteria count (LBC) at or above the upper threshold of 1,000 cfu/ml, to which nuisance notices were issued under the PHMSO. All affected property owners of the cooling towers responded by undertaking immediate cleaning and disinfection works. The EMSD website also regularly publishes updated statistics and information relating to cooling tower inspections and water sample test results.

Concurrent with inspections and testing, EEO held briefings with developers and property management companies on the proper design, operation and maintenance of fresh-water cooling towers. These met with an enthusiastic response.

This new regulatory regime and the inspection programme are producing a strong deterrent effect that will help reduce the public health risk of Legionnaires' disease. Our target is to conduct 800 inspections in 2011 / 12.

District Cooling System in Progress

Construction of Phases I and II of the District Cooling System (DCS) at Kai Tak Development is making smooth progress, with pipe laying works underway and ongoing construction of the central plants including the one near EMSD headquarters. The chilled water for the Cruise Terminal air conditioning systems is expected to begin flowing in 2013, in time for operations to begin at the first berth. The EEO is now preparing for preliminary deliberation on the future operation of the DCS, looking at various technical parameters and financial models, including a user tariff scheme.



LED燈（圖中央）也可用作辦公室照明。
LED lights (centre) can be used for office illumination too.

節能技術

我們的技術研究小組在2011年進行了幾項節能技術研究，工作照明是其中之一。工作照明是一種照明設計方式，為特定的工作範圍額外提供有開關控制的燈，而把其他非工作範圍保持在較低的照明水平，從而節省照明所耗的能源。

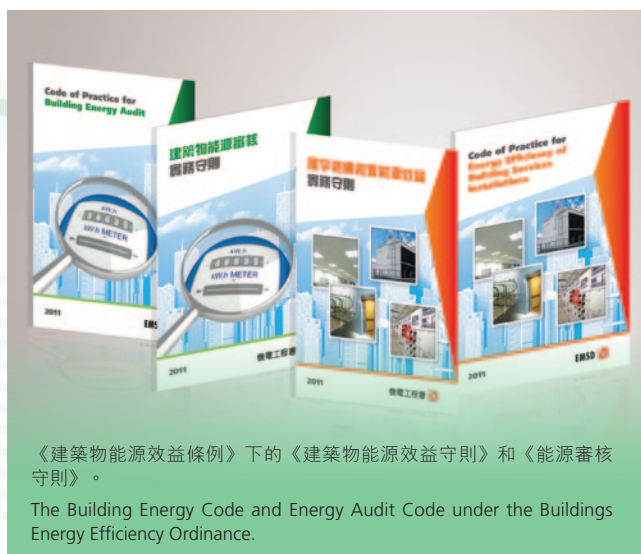
我們並出版了《工作照明設計》小冊子，說明工作照明設計的方式，並列出設計上需考慮的因素和應用例子，供本地業主和物業管理經理參考。小冊子已上載機電工程署網頁。

前瞻

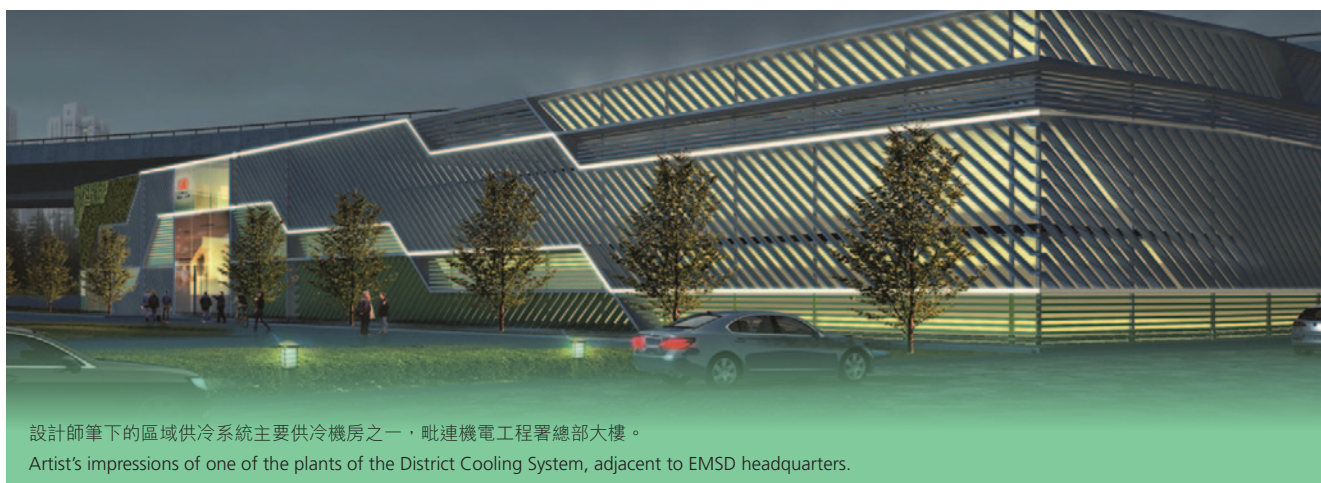
為了配合強制性能源效益標籤計劃和《建築物能源效益條例》陸續推行，能源效益事務處正全力進行業界宣傳教育工作，並為全面巡查和執法工作做好準備。同時，我們也全力監察全港首個大型區域供冷系統的施工，並為供冷系統未來的營運和管理展開規劃。



介紹強制性能源效益標籤計劃的新小冊子。
New leaflet on MEELS.



《建築物能源效益條例》下的《建築物能源效益守則》和《能源審核守則》。
The Building Energy Code and Energy Audit Code under the Buildings Energy Efficiency Ordinance.



Energy-saving Technology

Our R&D team investigated several energy-saving technologies in 2011, including task lighting design. The task lighting approach provides additional light with on/off control of specific areas where tasks are being performed, leaving the other areas at lower ambient illumination level, thus saving energy in general lighting.

Information on this approach, together with design considerations and application examples relevant to Hong Kong building owners and managers, is provided in the Task Lighting Design pamphlet now available on the EMSD website.

Looking Forward

With the incremental implementation of MEELS and BEEO, the EEO has been ramping up trade education efforts and gearing up to engage in full-fledged inspection and enforcement programmes. At the same time, the Office will be busy monitoring the construction of the District Cooling System, the first large-scale project of its kind in Hong Kong, while planning for its future operation and management.





提高公眾安全
及節能意識

Raising Public Awareness





機電工程署客戶聯絡委員會，成員包括社會大眾和業界人士，就規管服務可如何改善服務提供意見和建議。

EMSD's Customer Liaison Group comprises members of the public and various trades who give feedback and suggestions to help improve our Regulatory Services.

我們的公眾教育及宣傳活動，目的是影響業界和市民大眾的行為，協助他們守法，並以安全及節能的方式的生活。我們運用多種渠道與訊息跟目標對象溝通，以收最大的成效。

傳媒聚會

傳媒是規管服務與市民之間的重要訊息橋樑，因此我們必須與傳媒建立正面的工作關係，而在我們努力改進服務的同時，也須維持工作上的高透明度。

2011年8月，我們邀請了全港主要傳媒機構的廿多位編採人員到機電工程署總部小聚。當天規管服務的高層人員，包括各部別負責人，跟傳媒代表分享了工作的重點和未來方向，並聆聽了傳媒對若干問題的看法。今次聚會，象徵了規管服務的重新出發。

機電青少年大使

我們的「機電青少年大使計劃」在2011年進展良好，不但吸收了新成員，還舉辦了多項新活動。

活動之一是邀請大使出席於2011年3月假旺角麥花臣球場舉行的「工程周嘉年華」。嘉年華是去年由本地各大專業工程機構合辦、為期兩周的推廣活動的壓軸節目，當天有多個遊戲攤位及展覽，主題是突顯工程專業對香港的貢獻，吸引年青人晉身工程行業。

年內我們也為大使安排了其他活動，以推廣機電安全和能源效益，同時也招攬更多年青人加入大使計劃，例如網上問答比賽就很受歡迎，獎品包括機電工程署出版的《機電安全與能源效益》通識教材。

我們來年會繼續努力，讓大使計劃更豐富多采，使更多年青人加入傳揚機電安全和能源效益的行列。

通識教材

為支持新高中課程，機電工程署於2011年出版了《機電安全與能源效益》通識教材，分發給全港中學。教材全套共四本，中英兼備，分別介紹機電安全、能源效益、可再生能源及能源效益建築物，內容豐富易用，方便中學師生進行通識活動。

「e家」宣傳電氣安全

我們去年在 Youtube 開設專用頻道，放映電氣安全宣傳片和電業人員培訓短片，同時推出了新的動畫人物——「e家」一家人，包括5位家庭成員，即媽媽、爸爸、女兒安安、兒子全全和婆婆，藉著他們一家的故事，帶出日常生活中電氣安全的正確觀念和做法。

推廣供氣分喉安全

供氣分喉鏽蝕是本港氣體事故的主要原因之一。因此，我們採取了策略性的宣傳方法，推廣供氣分喉安全。除了氣體供應公司每18個月為住宅用戶進行一次定期安全檢查外，我們於2011年也推出全面的宣傳計劃，透過氣體安全小冊子、海報、帳單、講座、機電工程署網頁、及屋邨探訪等，廣泛傳播氣體安全資訊。透過多元化的宣傳，鼓勵戶主配合氣體供應公司人員入屋進行安全檢查，如發現不正常情況，則應馬上聘請註冊氣體承辦商進行維修。

我們也要求氣體供應公司對較高風險的大廈，例如供氣分喉有嚴重鏽蝕紀錄的大廈，縮短定期安全檢查週期至每12個月一次，以加強氣體安全。



機電青少年大使參加一個有關機電安全和能源效益的簡報會。

E&M Young Ambassadors gather for a safety and energy efficiency briefing.



五口之家的「e家」動畫人物，帶出日常生活中電氣安全的正確觀念和做法。
The five-member e-family cartoon characters introduce good electrical safety practices in everyday life.

Our public education and awareness-building activities aim to shape the behaviour of the regulated trades and the general public, helping them comply with the law and work and live in a safe and energy efficient manner. We interact with our target groups through a variety of channels and messages in order to maximise the impact of our communication initiatives.

Media Gathering

The media are a key channel of information between Regulatory Services and the general public. It is vital that we establish a positive working relationship with the media and maintain a high level of transparency in our work as we strive to continuously improve our services.

As a symbolic re-launch of our work, we invited representatives of key Hong Kong media to join us at an informal gathering at our headquarters in August 2011. This provided an opportunity for our senior management, including Division heads, to share highlights of our work and future direction with journalists and to hear first-hand how members of the media view a variety of issues. More than 20 editors and journalists attended.

E&M Young Ambassadors

The E&M Young Ambassador Programme made good progress during 2011, attracting new members and offering new activities.

Our Young Ambassadors were among many youths who attended the 2011 Engineering Week carnival, held in March at the Macpherson Playground in Mongkok. The culmination of a week-long series of activities jointly organised by Hong Kong's professional engineering organisations, local universities and EMSD, the carnival presented fun games and exhibits to highlight the contribution of the engineering profession to Hong Kong and to promote it to young people.

Other activities were also held during the year, both to promote E&M safety and energy efficiency knowledge and to recruit youngsters as E&M ambassadors. An online quiz proved popular, with prizes such as EMSD's E&M Safety and Energy Efficiency Liberal Studies Teaching Kits.

We will continue to enrich the Young Ambassador Programme in the coming year so that more youngsters can help to spread the word about E&M safety and energy efficiency.

Liberal Studies Teaching Kit

To support the new senior secondary curriculum and promote E&M safety and energy efficiency knowledge, EMSD published an E&M Safety and Energy Efficiency Liberal Studies Teaching Kit in 2011 and distributed it to secondary schools in Hong Kong. The Teaching Kit comprises four bilingual booklets covering electrical and mechanical safety, energy efficiency, renewable energy and energy efficient buildings. Materials are presented in a user-friendly manner to help teachers and students approach the subject with confidence.

e-Family Promotes Electrical Safety

In addition to launching a dedicated YouTube video channel, where the public and the trade may easily access our electrical safety and training videos, we also introduced a family of cartoon characters during the year. This "e-Family" provides a focus around which our electrical safety materials for the general public will evolve. The "e-Family" has five members: mummy, daddy, On On the daughter, Chuen Chuen the son, and grandma. Through their interactions, the characters illustrate electrical safety concepts and introduce good practices for everyday life.

Gas Riser Safety Promotion

Corrosion of gas risers has been one of the major causes of gas incidents in Hong Kong. We have therefore adopted a strategic approach to promoting gas riser safety. While gas supply companies have committed to conducting a safety inspection for each domestic household every 18 months, a comprehensive riser safety publicity programme was held during the year to encourage householders to allow gas supply companies to conduct regular safety inspections inside their units and, if irregularities are found, to engage a registered gas contractor to rectify the irregularities in a timely manner. The programme comprises dissemination of gas safety messages through leaflets, posters, gas bill envelopes, talks, the EMSD website and visits to housing estates.

We have also required the gas supply company concerned to step up the frequency of regular safety inspections to once every 12 months for high-risk buildings, such as those with a record of serious riser corrosion.

提高公眾安全及節能意識 Raising Public Awareness



我們為推廣優化現有升降機，已推出了《優化升降機指引》和為升降機擁有人與物業管理公司舉行了連串座談會。

Our Lifts Modernisation programme is supported by the Guidelines for Modernising Existing Lifts booklet and seminars for lift owners and property management companies.

優化公營機構升降機

為了鼓勵升降機擁有人和物業管理公司加快優化舊升降機，我們在2011年為商界舉辦了7場講座，有千多人出席。我們也鼓勵各個政府決策局和部門，為其公共大樓和設施進行舊升降機優化工程，為社會樹立好榜樣。

同樣重要的，是向公眾宣傳在進行日常大廈維修保養的時候，必須考慮優化升降機。綜合樓宇維修保養在歐洲已是很流行的觀念，而升降機維修保養也是核心工作之一，我們希望把這觀念引進香港，有助提高升降機安全水平。

亞太經合組織電動車研討會及展覽

機電工程署協助政府在本港推動電動車，具體角色是為加快全港充電設施的發展提供支援。

2011年10月，我們為於香港科學園舉行的亞太區經濟合作組織「電動車的能源及綠色運輸優點」研討會提供支援。組織成員熱烈參與，並就電動車發展的優點與挑戰作深入討論。我們也與環境局合作，舉辦了一個名為「電動車—引領香港邁向綠色新世代」的展覽，與研討會同時進行。展覽向公眾開放，展出來自各大製造商的電動車，包括私家車、小型客貨車、貨車、巴士、電單車和小型摩托車，並展出來自電力公司和電動車充電設施供應商的最新充電設施。透過展覽，市民可近距離體驗電動車，認識其環保效益。

鐵路安全網上遊戲

我們於2011年加強了機電工程署網頁鐵路安全部份的內容，加入了港鐵公司的鐵路安全小冊子，內容包括安全使用出／入閘機、月台、自動梯、自動人行道和升降機的安全守則，我們的網站也增添了互動網上遊戲，加強大眾對在鐵路月台、自動梯和車廂內安全行為的認識。

機電工程署也與港鐵公司合辦了一系列車門安全宣傳活動，在列車車門、自動月台閘門和月台幕門貼上色彩繽紛的海報和標貼，提醒乘客在聽到閉門聲響時應停步，不要衝門。車門安全活動的海報和標貼，都強調一個安全訊息，就是「嘟嘟聲一響，停步受讚賞，着重安全最抵讚」。



機電工程署總部教育徑與展覽廳的新置展品之一，大受學生和參觀團體歡迎。

One of the new exhibits in the EMSD headquarters Education Path and Exhibition Gallery, popular with students and delegations.

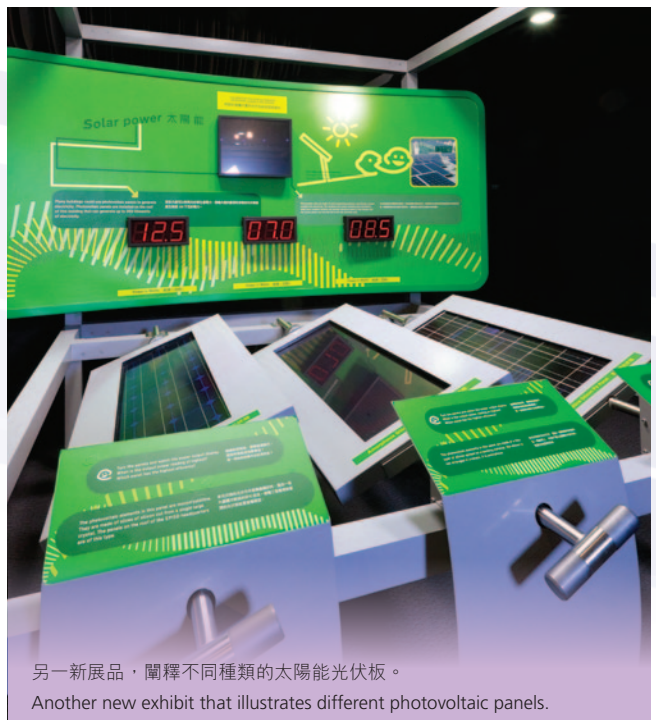
《建築物能源效益條例》展開業界宣傳

《建築物能源效益條例》的主要條文雖要待2012年9月才開始推行，但我們已開始跟業界溝通，提高他們對條例的認識，作好符合法例要求的準備。2011年我們舉辦了多個講座和研討會，與物業管理公司和相關的專業團體成員交流，讓他們熟習條例的法定要求。我們也就條例下的兩份實務守則（分別為《建築物能源效益守則》和《能源審核守則》）的技術標準，向業界進行諮詢，而兩份守則將於2012年刊憲。

同時，我們去年也就強制性能源效益標籤計劃第一階段和第二階段，持續進行業界和公眾宣傳工作，包括電視和電台廣告，走訪零售店舖，並於全港學校舉行了數百次講座與展覽，並經常參與社區活動與嘉年華等。

業界意見調查2011

規管服務上次進行業界調查是2008年，我們於2011年再度進行業界調查，以了解受規管的業界對我們工作成效和質素的意見。調查結果提供了有用的參考數據，並作出了改善服務和溝通程序的建議。



另一新展品，闡釋不同種類的太陽能光伏板。

Another new exhibit that illustrates different photovoltaic panels.



Lift Modernisation for the Public Sector

To encourage lift owners and property management companies to step up efforts to modernise aging lifts, we delivered seven talks on the topic to the private sector during 2011, reaching some 1,100 individuals. We have also urged our partners within all government bureaux and departments to implement lift modernisation measures in public buildings and facilities so as to set a good example for the community.

Of equal importance are efforts to raise public awareness of the need to include building rehabilitation, such as lift modernisation, in regular building maintenance. The concept of integrated building maintenance, with lift maintenance as one of several essential tasks, is a popular notion in Europe and its introduction to Hong Kong will help raise the level of lift safety in our community.

APEC Electric Vehicles Workshop and Exhibition

EMSD plays a role in promoting the wider use of electric vehicles (EVs) in Hong Kong, in particular by expediting the development of a territory-wide EV charging infrastructure.

In October 2011, we supported the APEC Workshop on Energy and Green Transport Benefits of Electric Vehicles at the Hong Kong Science Park. This event was well attended by APEC delegates, who enthusiastically deliberated on the merits and challenges of the development of EVs. With the Environment Bureau, we also organised an exhibition entitled Electric Vehicles – Driving Toward a Greener Hong Kong, which was held alongside the workshop. Open to the public, it showcased electric passenger vehicles, vans, trucks, buses, motorcycles and scooters from major manufacturers, together with the latest charging facilities from power companies and charging facility suppliers. The exhibition was a good opportunity for the Hong Kong public to take a close look at EVs and learn more about their environmental benefits.

Railway Safety Online Games

The railway safety section of the EMSD website was enriched in 2011 with the inclusion of a booklet on safe MTR travel produced by the MTR Corporation Limited (MTRCL). The downloadable booklet includes tips on the safe use of entry/exit gates, railway platforms, escalators, moving walkways and

lifts. A series of interactive online games was also posted on our website to reinforce safe behaviour on the platform, escalator and train.

EMSD also co-organised with MTRCL a train door safety campaign with colourful posters and stickers on train doors, automatic platform gates and platform screen doors to remind passengers to stop at the sound of the door chimes. The posters and stickers highlighted the key train door safety tip, "Stop when you hear the door chimes! You can make it a safe journey!"

BEEO Publicity for Trade Begins

Though implementation of the core provisions of the Buildings Energy Efficiency Ordinance (BEEO) will not begin until September 2012, we have already begun communicating with the trades to build awareness of BEEO and help them prepare to comply with the law. Numerous talks and seminars were held during 2011 to engage property management agents and members of related professional bodies and to familiarise them with the statutory requirements. The trades were also consulted on the technical standards of the two Codes of Practice under BEEO, namely the Building Energy Code and the Energy Audit Code, which will be gazetted in 2012.

At the same time, trade and community publicity on phases one and two of the Mandatory Energy Efficiency Labelling Scheme continued throughout the year. Activities included public service announcements on TV and radio, retail store visits and hundreds of outreach talks cum exhibitions at schools throughout Hong Kong, in addition to frequent participation in community events and carnivals.

Trade Survey 2011

Further to the trade survey completed in 2008, a survey was conducted in 2011 to gauge the effectiveness and quality of the processes through which Regulatory Services interfaces with the regulated trades. Survey results have provided useful reference data and suggested improvements to our services and communication procedures.



機電工程署

香港九龍啟成街3號

Electrical and Mechanical Services Department

3 Kai Shing Street, Kowloon, Hong Kong

電話 Tel: (852) 1823 傳真 Fax: (852) 2890 7493

網址 Website: www.emsd.gov.hk

電郵 Email: info@emsd.gov.hk