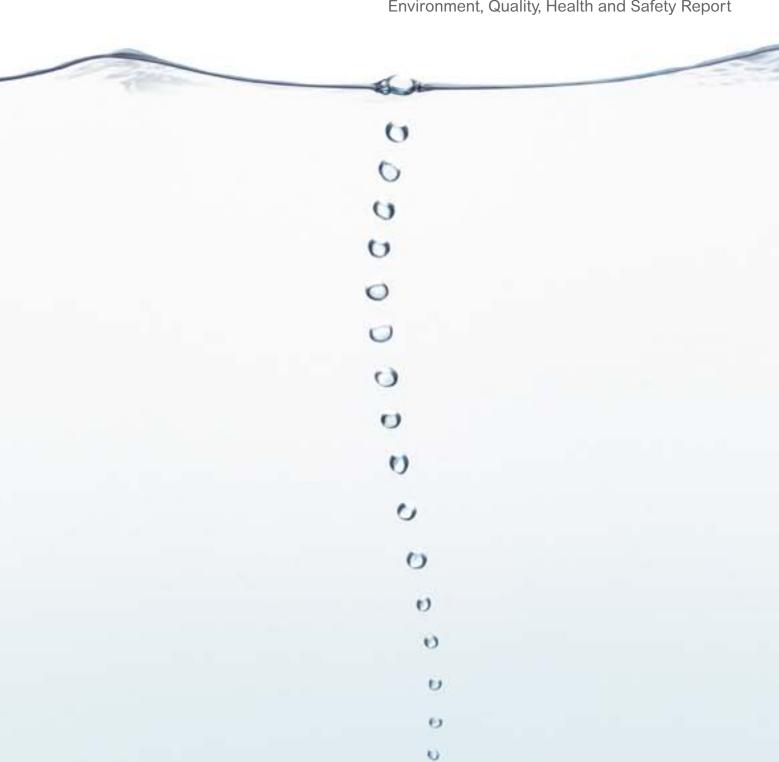


香港電燈有限公司 The Hongkong Electric Co., Ltd.

2006

環境、品質、健康及安全報告 Environment, Quality, Health and Safety Report



Liquefied natural gas (LNG) is one of the cleanest fuels available today. This is why we have chosen LNG as the theme for our 2006 Environment, Quality, Health and Safety Report.



Natural gas liquefies at -163°C. In liquid form, it occupies much less space than in gaseous phase making it much more cost-effective to transport, by specially designed LNG sea vessels, over long distances where pipelines do not exist. Our cover image features the bubbles that can be seen inside LNG when it gradually changes back to its gaseous phase.

With its impurities removed during the liquefying process, LNG is even cleaner than natural gas from a gas field and its use helps enhance the very quality of air that we breathe. In commissioning Hong Kong's first ever LNG-fuelled generating unit, HK Electric is demonstrating its strong commitment to protecting the environment.

二零零六年《環境、品質、健康及安全報告》以液化天然氣為主題,皆因它是現今最潔淨的 能源之一。

天然氣會於攝氏負一百六十三度的温度下液化。與氣態相比,液態天然氣所佔的空間大大縮少,方便利用特別運輸船隻,將天然氣運送到未設輸氣管道的地方,更具成本效益。封面顯示的氣泡,就是當液化天然氣逐漸轉回氣態時出現的。

天然氣會在液化過程中淨化,較從氣田直接抽取的更為潔淨,使用時更有利空氣質素。港燈營運全港首台以液化天然氣為燃料的發電機組,足証公司對環保的重大承諾。

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Mrs

Tso Kai-sum

Managing Director June 2007

曹棨森

董事總經理

二零零七年六月

持續環保供電 不斷邁步向前

董事總經理致辭

過去一年,環保議題無論在香港社會以至國際間,均受到前所未有的關注。隨著市民對清新空氣的期望不斷上升,港燈繼續落實多項環保措施,致力改善本港的空氣質素。

我們在二零零六年其中一項重要工作,是在南丫發電廠引入天然 氣發電,採用首次在港應用的液化天然氣為發電燃料。新一台 L9機組是目前全港最環保及最具效益的發電機組之一,不但足 以應付電力增長,同時亦可把對環境的影響減至最低。預期在 二零零七年,天然氣發電將佔南丫發電廠的總產電量約百分之 十五。

港燈積極響應香港政府的藍天行動,我們正為兩台燃煤發電機組加裝煙氣脫硫裝置及低氮氧化物燃燒器。這些減排措施,加上更廣泛利用天然氣發電,將有助港燈穩步達至政府為電廠訂定的二零一零年減排目標。

年內公司舉辦的各項環保活動,得到公眾熱心支持和參與,我們 感到十分鼓舞,相信市民和學生都認同,身為社會的一份子需為 保護環境出一分力。

在這份二零零六年《環境、品質、健康及安全報告》中,我們並會闡述港燈去年新推的環保項目,當中包括探討在港興建一個一百兆瓦離岸風力發電場的可行性。港燈供電可靠程度繼續維持在99.99%的極高水平,我們亦會在報告中滙報各項深化優質顧客服務的工作進展。

我們能夠在以上領域穩步向前,力臻完美,實有賴港燈的股東、 員工以及各供應商和承辦商的全力支持。他們努力實踐與港燈的 共同夢想,為客戶提供安全及優質的電力服務,同時又致力保護 環境,我謹致衷心的感謝。

香港作為世界級的城市,無論是市民或是社會各行各業,都期望可以繼續以合理價格享有世界級的電力供應。我與我的團隊會繼續竭盡所能,以最環保及負責任的態度去提供電力服務,並配合未來的需求。

Sustaining Purity-Sustaining Progress

A Message from the Managing Director

The past year has seen Hong Kong, and indeed the international community, more concerned about environmental issues than ever before. At HK Electric, we are keenly aware of rising public aspirations for cleaner air and have been working hard to improve the quality of the air we breathe.

A major initiative we undertook in 2006 was the commissioning of Unit L9 at Lamma Power Station (LPS), which is Hong Kong's first generating unit fuelled by liquefied natural gas (LNG). L9 is currently one of the cleanest and most efficient generating units, satisfying the city's growing energy needs while minimising the impact on the environment. In 2007, approximately 15% of all electricity produced at LPS will be generated by gas.

To ensure that clean air is a reality rather than a memory, we have also commenced work to retrofit flue gas desulphurisation plants and low nitrogen oxides burners to two coal-fired units. This, together with the wider use of natural gas for power generation, will put us firmly on track to meet the emission targets for 2010 set by the Hong Kong Government, whose Action Blue Sky Campaign we also actively support.

We are encouraged that the public also joined in our environmental efforts enthusiastically. Our activities were hugely popular amongst residents and students, as they realise that everyone in society has a role to play in protecting the environment.

Elsewhere in this "Environment, Quality, Health and Safety (EQHS) Report 2006", you will read of many other new and ongoing environmental initiatives, including the study into the possibility of building a 100 MW offshore wind farm in Hong Kong waters. We also had a busy but rewarding year on the quality front as we continued to achieve a power supply reliability rating of 99.999% for our customers.

That HK Electric has been able to make such steady progress in the area of EQHS is a tribute to the unwavering support of its shareholders, workforce and many suppliers and contractors. In working so tirelessly to transform our shared dream of safe, quality power and a clean, green environment for all into a reality, each deserves our heartfelt thanks.

The people of Hong Kong demand and deserve an affordable power supply of world-class standard to run their homes and offices. In continuing to satisfy this need during the coming years, my team and I pledge to do everything possible to ensure that our actions are taken in the most environmentally responsible manner.

Our Vision, Mission and Core Values 企業抱負、使命及信念

Our operating philosophy is founded on the cornerstones of the following Vision, Mission and Core Values statements:

Our Vision

 To excel in the energy business in Hong Kong and key international markets

Our Mission

- To enhance shareholders' value
- To deliver excellent customer services and supply reliability
- To nurture a harmonious, efficient and committed workforce
- To care for the community which we serve

Our Core Values

- Pursuit of Excellence
- Integrity
- Respect & Trust
- Caring

我們的經營理念建基於下列的企業抱負、使命及信念:

企業抱負

• 致力在本港及海外主要市場成為傑出的能源企業

使命

- 為股東提升價值
- 為客戶提供優質服務及極可靠供電
- 為公司培養一支融洽、高效率及積極投入的團隊
- 為社群延續關懷

信念

- 求卓越
- 持誠信
- 互敬重
- 添關愛

Generating Facilities

HK Electric operates Lamma Power Station which has a total installed capacity of 3,756 MW as at 31 December 2006.

發電設施

港燈營運南丫發電廠。截至二零零六年十二月三十一日,電廠的總裝機容量為三千七百五十六兆瓦。

Туре	類型	Unit Capacity 單機容量
3 Conventional coal-fired units	三台傳統燃煤機組	250 MW 兆瓦
2 Conventional coal-fired units	兩台傳統燃煤機組	350 MW 兆瓦
3 Coal-fired units with low nitrogen oxides burner systems and flue gas desuplhurisation plants	三台配有低氮氧化物燃燒器 及煙氣脫硫裝置的燃煤機組	350 MW 兆瓦
1 Liquefied natural gas-fuelled combined cycle unit	一台以液化天然氣為燃料的 聯合循環機組	335 MW 兆瓦
1 Aero-derivative gas turbine	一台航空引擎燃氣輪機	55 MW 兆瓦
4 Industrial gas turbines	四台工業用燃氣輸機	125 MW 兆瓦
1 Combined cycle unit converted from two industrial gas turbines	由兩台工業用燃氣輸機改裝 成的一台聯合循環機組	365 MW 兆瓦
1 Wind turbine (located at Tai Ling of Lamma Island)	一台風力發電機組 (位於南丫島大嶺)	0.8 MW 兆瓦

Transmission and Distribution Facilities

輸配電設施

Туре	類型	Voltage Level 電壓
Cable system with total circuit length of 141 km	141公里的輸電網絡	275 kV 千伏
System with total circuit length of 266 km	266公里的輸電網絡	132 kV 千伏

As of 31 December 2006, HK Electric's power grid consisted of 23 switching stations and 26 zone sub-stations strategically located across all supply areas, excluding four additional sub-stations to power Hong Kong Island's MTR and Airport Express train networks.

At zone substation level, voltage is stepped down to 22 kV or 11 kV for distribution purposes. Once the power reaches our distribution sub-stations, the voltages are either supplied direct to customers or further stepped down to 380 V three-phase (220 V single-phase). As of 31 December 2006, we operated a total of 3,617 distribution sub-stations in our network.

截至二零零六年十二月三十一日,港燈的電網由 二十三個開關站及二十六個分區電力站組成,另外還有 四個為港島地鐵及機場快線供電的電力分站。

高壓電力經分區變電站把電壓降低至二十二或十一千伏,再分配客戶使用。在這些分站內,電力可直接供應予客戶或會被進一步降壓至三百八十伏三相(二百廿伏單相)。截至二零零六年十二月三十一日,港燈供電網內共設三千六百一十七個客戶電力分站。



Clean Air is Priceless 清新空氣 — 無價之寶

Safeguarding the environment, particularly clean air, remains a top priority in all areas and activities of our operations. We are mindful that our decisions and actions today will impact the health and well-being of not only ourselves, but also the future generations.

港燈的一切業務運作和活動,均以保護環境, 特別是保持空氣清新為優先考慮。我們深諳, 今天的決定與行動將會影響我們自己以至後代 子孫的健康與福祉。

Environmental Policy 環保政策

In fulfilling the mission to care for the community, The Hongkong Electric Co., Ltd. will strive to:

- Protect the environment: and
- Support sustainable development.

To accomplish this, we will:

- Integrate environmental considerations into all aspects of our business activities;
- Sustain a high level of environmental performance in addition to complying with all relevant legislation;
- Adopt best practicable environmental technologies to minimize the impact on the environment;
- Promote responsible and efficient use of energy, materials and natural resources:
- Enhance the environmental awareness and responsibility of our employees, contractors and suppliers;
- Maintain communication with the community and support meaningful environmental programs and activities;
- Attain continual improvement through the implementation of effective environmental management systems.

香港電燈有限公司以關懷社群為使命,並致力:

- 保護環境;及
- 支持可持續發展。

為達至以上目標,我們會:

- 將環保因素融入所有業務運作範疇;
- 遵守有關法例規定,並維持高水平的環保表現;
- 採用最有效可行的環保科技以求對環境的影響減至 最低;
- 推廣善用能源、物料與天然資源;
- 提升員工、承辦商及供應商的環保意識及責任感;
- 保持與社群溝通,並支持具環保意義的計劃及活動;
- 實施有效的環境管理以求持續改進。

員工環保培訓

在二零零六年,港燈為員工提供的環保培訓時數達 五千七百零五小時。



In 2006, a total of 5,705 employee-hours were devoted to environmental training.







First LNG Unit Breathes New Life into LPS

Successfully synchronised in July 2006, Lamma Unit L9 is a single-shaft gas-fired combined cycle unit and the first in Hong Kong fuelled by liquefied natural gas (LNG). It provides clean power by significantly reducing the air emissions - measurably less carbon dioxide and nitrogen oxides than those generated with conventional fossil fuels while sulphur dioxide and particulate emissions are almost zero.

This is possible through combining the use of LNG with a carefully selected advanced gas turbine; dry low nitrogen oxides technology and an extremely efficient triple-pressure with reheat steam cycle system.

南丫電廠引入液化天然氣發電

港燈於二零零六年成功引入液化天然氣發電。L9機組屬單軸燃氣聯合循環機組,已於二零零六年七月成功併入電網。與傳統化石燃料比較,天然氣發電所產生的二氧化碳和氮氧化物會大大減低,至於二氧化硫和粒狀物的排放則幾近零。

為客戶提供更環保的電力,我們不單採用了液化天然氣 作為發電燃料,同時機組的種類亦經精心挑選,包括 採用先進的燃氣輪機、乾式低氮氧化物燃燒技術及以 高效率見稱的三壓再熱式蒸汽循環系統。



In addition to generating clean electricity, the new 335 MW unit's greatest strength is its efficiency. With a rating of over 55%, L9 is one of the most efficient generating units in Hong Kong. It is currently working on base load operation and is expected to contribute around 15% of HK Electric's total electricity output during 2007.

Located on a 22-hectare area of reclaimed land just south of Lamma Power Station (LPS), L9's core equipment includes a Mitsubishi M701F combustion gas turbine unit, a heat recovery steam generator and a steam turbine unit. LNG is shipped from gas fields in Australia's North-West Shelf to Guangdong LNG Terminal. From there it is gasified and transmitted by a purpose-built 93 km submarine gas pipeline to a Gas Receiving Station at LPS which regulates temperature and pressure.

Measuring 50.8 cm in diameter, the steel pipeline is buried three meters beneath the seabed and protected by armour rock at strategic locations along its route. Effectively acting as an "on-tap" supply facility, the pipeline has saved even more precious natural resources by eliminating the need for storage tanks. The pipeline is designed to last for 50 years and has sufficient spare capacity to meet Hong Kong's growing electricity needs well into the 21st Century.

天然氣發電不單潔淨,這台容量達三百三十五兆瓦的新機組,在運作效能上亦屬首屈一指,運作效率高達百分之五十五以上,可說是全港最具效益的發電機組之一。它是南丫發電設施的基本負載機組,估計在二零零七年,機組的產電量將約佔港燈總發電量的百分之十五。

L9機組設於南丫發電廠以南一幅二十二公頃的填海 土地上。主要設施包括一台「Mitsubishi M701F」燃氣 輪機、一台餘熱鍋爐及一台汽輪機。液化天然氣從澳洲 西北大陸架的氣田,經由運輸船送至廣東液化天然氣接 收站,氣化後再經全長約九十三公里的海底輸氣管道 送至南丫發電廠的天然氣接收站,並在此調節溫度和 壓力。

鋼製的輸氣管道直徑為五十點八厘米,埋於海床下 三米,沿線適當地點鋪設防護岩石保護。輸氣管道可 隨時供氣,無需使用傳統的氣體儲貯缸。管道的使用期 一般為五十年,其容量亦足以應付邁進二十一世紀的 電力需求。



Synchronised in mid 2006, the new gas-fired unit is one of the most efficient power generation units in Hong Kong.

新天然氣機組於二零零六年中併網,是全港 最具效益的發電機組之一。

Offshore Wind Farm Under Study

In caring for the environment, HK Electric was among the first companies in Hong Kong to support the Government's policy of having 1 to 2% of all electricity generated locally by renewable sources by 2012.

In its first year of operation since official commissioning in February last year, Hong Kong's first wind power station, Lamma Winds, had generated over 800,000 kWh of electricity by end of February 2007. As HK Electric's first venture into renewable energy (RE), Lamma Winds is providing us with valuable information on the day-to-day operation of wind turbines and their potential for wider application in Hong Kong.

As public awareness of RE grows, so too has Lamma Winds become a popular landmark and an effective educational tool. Thousands of visitors have flocked to Lamma Island for a first-hand understanding of RE at work, with more than 50 visits from professional, environmental and educational bodies in the past year.

Encouraged by the success of the project, we have now embarked on a feasibility study to explore the possible development of a 100 MW wind farm in Hong Kong's territorial waters. Due to geographical constraints in Hong Kong, an offshore wind farm is the only viable option in exploring the wider use of wind energy.



離岸風場的可行性研究

政府訂下目標,期望在二零一二年,本港生產的電力有百分之一至二來自可再生能源。港燈一向積極保護環境,也是首批支持此項政策目標的公司之一。

去年二月,香港首個風力發電站一「南丫風采發電站」一 正式投入服務。截至二零零七年二月底,風站產生超過 八十萬度電力。港燈透過這個試點項目,掌握風力發電 機組的日常運作,以探討更大規模應用風電的可行性。

隨着市民大眾對可再生能源的認識與日俱增,「南丫風 采發電站」已成為南丫島的地標,並為可再生能源提供 實用教材。去年,數以千計的訪客曾參觀風站,親身 體驗可再生能源的應用實況,而來自專業團體、環保及 教育機構的參觀次數超過五十次之多。

繼風站落成後,港燈現正展開研究在香港水域興建一個一百兆瓦離岸風力發電場的可行性。由於本港的地理環境特殊,發展離岸風力發電場已成為探索更大規模應用風能的唯一可行方案。

In July last year, a project profile was submitted to the Government for an Environmental Impact Assessment (EIA) covering two potential locations. One is situated 3.5 km southwest of Lamma, while the other lies 3.2 km southeast of the Ninepin group of islands. Both sites were chosen after a careful study of several factors, including wind potential, proximity to HK Electric's grid, seabed utilities, marine conservation areas, water depth and possible effect on navigation channels. The proposed facility will include 40 triple-bladed 2.5 MW wind turbines.

The EIA study is expected to be completed by end 2007. If the wind farm project is granted approval, it is expected to generate 175 million units of electricity per year when it comes on line in 2012, representing about 1.6% of HK Electric's electricity sales for 2006, or sufficient energy to satisfy the day-to-day needs of around 50,000 Hong Kong families.

港燈於去年七月向政府提交一份工程項目簡介,闡述將研究在南丫島西南三點五公里及果洲群島東南三點二公里的海面,進行離岸風場的環境影響評估。選址是經小心考慮多項因素,包括風力資源、與港燈電網的距離、附近海床的公用設施、海洋保育、水深及對航道的潛在影響等。擬建的設施包括四十台,每台由三塊葉片組成、發電量為二點五兆瓦的風機。

環評預期於二零零七年底完成。若計劃得以落實,可望於二零一二年投入運作,每年產電達一億七千五百萬度,約佔二零零六年港燈售電量的百分之一點六,足夠約五萬個家庭使用。

Retrofitting FGDs further reduces emissions. 加装煙氣脫硫裝置有助進一步減排。



Retrofitting FGD Plants and Low NO, Burners to Reduce Emissions

HK Electric has been carefully monitoring and capping its concentration rates and hourly emission rates since the early 1990s. In order to further reduce emissions from LPS, we are now retrofitting new Flue Gas Desulphurisation (FGD) plants and Low Nitrogen Oxides (NO_x) Burner systems at two 350 MW coal-fired generating Units, L4 and L5. When the new FGD plants and Low NO_x Burners come on stream in 2009 and 2010, they will reduce sulphur dioxide (SO₂) and NO_x emissions at each unit by over 90% and 50% respectively.

We are on target to meet the steadily tightened caps on permissible SO₂, NO_x and respirable suspended particulate emission levels imposed by the Government in September 2006. Our prompt action will play a vital role in helping to ensure that Hong Kong is fully compliant with the 2010 emission reduction targets established in the "Study of Air Quality in the Pearl River Delta Region" Report of 2002.

Unit Upgraded to Run on Natural Gas

Two simple cycle gas turbines which run on oil have previously been converted into a combined cycle unit by adding heat recovery steam generators and a steam turbine bottoming cycle, generating an extra 115 MW in output without consuming any additional fuel. To further enhance the combined cycle unit's environmental performance, we are now converting it to run on natural gas. This oil-to-gas conversion work will result in significant reductions of SO₂, NO_x and particulate emissions at LPS and is expected to be completed by early 2008.

加裝脱硫裝置及低氮氧化物燃燒器

自九十年代初,港燈一直嚴格監控電廠煙氣排放的濃度 及排放量。為進一步減低南丫發電廠的排放,我們 正為兩台三百五十兆瓦燃煤發電機組(L4及L5)加裝 煙氣脫硫裝置及低氮氧化物燃燒器。安裝工程預期於 二零零九年及二零一零年完成,屆時二氧化硫及氮氧 化物排放量將大幅下降分別超過百分之九十及百分之 五十。

政府於二零零六年九月制訂南丫發電廠的二氧化硫、 氮氧化物及可吸入懸浮粒子等排放上限。港燈會謹慎 落實相關的排放準則,配合在二零零二年「珠江三角洲 地區空氣質素研究」報告中,香港需在二零一零年達到 的減排目標。

提升機組級別配合天然氣發電

港燈早前透過加裝餘熱鍋爐及汽輪機循環系統,把南丫發電廠兩台原以燃油運行的燃氣輪機改裝成為一台聯合循環機組,令電力輸出量增加一百十一五兆瓦之餘,同時毋需額外燃料。為進一步提升機組的環保績效,我們會改裝機組用作天然氣發電。工程預計於二零零八年初完成,屆時可大大減少電廠的二氧化硫、氦氧化物及粒狀物等排放。

Environmental Initiatives Achieve Measurable Savings

In addition to reducing air emissions, L9 also incorporates several other environmentally friendly measures. They include the use of solar photovoltaic street lighting and translucent cladding which allows natural light to enter the unit's main building and 275 kV switching station.

About 5% of all reclamation materials consists of recycled coal ash, while the use of rubble-mound seawalls at the Lamma Power Station Extension's south and west edges nurtures marine life. The collection of rainwater from the facility's roof for use in gardening and cleaning activities is yet another way in which L9 is benefiting our environment.

Other major initiatives during 2006 included the launch of a waste reduction project to re-use formerly discarded coal conveyor belts. The recycled belts are now being used to clean up hot pyrite discharge from the coal mill areas at Units L7 and L8. In addition, a 5% reduction in discarded rollers from conveyor belts was also achieved by regularly rotating the roller positions to eliminate localised wear and tear. Degraded transformer oil at LPS is also being re-generated for re-use via Fuller's Earth Treatments.



環保措施果效彰顯

新的L9天然氣機組除可有效減低產電時的氣體排放外,相關廠房設備亦加入環保元素,包括在主廠房大樓和 二百七十五千伏開關站採用半透明物料,有效利用天然 光線;而部分街燈照明亦採用太陽能發電。

另外,用於建設新廠的填海土地,當中百分之五的物料 採用來自電廠收集的煤灰,至於建於南面及西面的碎石 海堤,則有助保育海洋生物。循環再用的環保概念亦應 用於收集屋頂兩水作園藝及清潔之用。

除此之外,港燈於二零零六年推行其他環保措施,包括利用循環再用的運煤帶,清理從兩台燃煤機組在磨煤過程中排出的高溫流化鐵粒。另外,為減低運煤帶滾筒的損耗,工作人員會定期將滾筒對調,成功將滾筒棄置量降低百分之五。我們也在南丫發電廠利用漂白土過濾技術,將老化的變壓器絕緣油循環再用。

Solar-powered street lighting outside L9 Main Station Building. L9 機組廠房大樓外的太陽能街燈照明。

As a keen member of the Government's Wastewise Scheme since 2006, HK Electric has been working tirelessly to achieve all waste reduction targets.

The company was awarded with Gold Wastewise Logo in April 2007.

Following up on the launch of Lamma Winds, we are now investigating the feasibility of installing a smaller, 2 kW-class wind turbine at LPS. The turbine is expected to be six metres tall and three metres wide.

Recognised Again for "Excellent" Indoor Air Quality

Over the years, HK Electric has done a great deal to improve indoor air quality (IAQ) in the workplace. In November 2006, our efforts in this area were rewarded with a second consecutive "Excellent Class" IAQ certification for Hongkong Electric Centre from the Government's IAQ Certification Scheme. We were among only a handful of the numerous entrants to successfully obtain certification for an entire building in Hong Kong. Introduced in September 2003, the voluntary and self-regulatory scheme encourages good IAQ management practices and recognises local organisations which pursue IAQ of the highest quality for their employees.

港燈積極響應政府推行的「明智減廢計劃」,致力達至 所訂的各項減廢目標,並於二零零七年四月獲得「卓越 明智減廢」的嘉許。

繼「南丫風采發電站」落成啟用後,港燈現正研究在南丫發電廠興建一台二千瓦級別的小型風力發電機,風車高六米、寬三米。

卓越室內空氣質素再獲嘉許

港燈過去曾落實多項措施改善辦公室內的空氣質素,這方面的努力在二零零六年十一月再次得到肯定。港燈中心連續兩年榮獲由政府「室內空氣質素檢定計劃」頒發的《卓越級》室內空氣質素檢定證書。該計劃於二零零三年九月推出,屬自願性質,目的是鼓勵機構實施良好的室內空氣質素管理。全港只有少數參與的公私營機構能夠就整幢樓宇成功取得證書,港燈是其中之一。





Spreading the Green Message Far and Wide 廣泛宣揚環保信息

Knowledge can change lives and knowledge can also change the environment for the better. We believe if more people change the way they do things, the world will become a better place. In 2006, HK Electric remained very active and enthusiastic in rippling the green message out to our business partners, customers and our younger generation.

知識可以改變生活,亦能令環境變得更好。 我們相信只要大家携手合作,世界可以變得更 美好。港燈於二零零六年繼續熱衷及積極地 向我們的業務夥伴、客戶及年青一代宣揚環保 信息。



Clean Energy Fund to Promote Renewable Energy

The HK Electric Clean Energy Fund is the Company's latest initiative to support the study and development of renewable energy (RE) in Hong Kong. It was launched in April 2006 to provide funding for schools and tertiary institutes to carry out RE projects on campus. The Fund attracted 45 applications out of which three primary schools, six secondary schools and three tertiary institutes were subsequently selected to receive a total of \$1.06 million to finance projects on the use of solar, wind and wave energy.

All 12 winning projects were recognised for their innovation, technical feasibility, educational and environmental benefits, sustainability and cost effectiveness. In addition to setting up RE facilities on-campus, winners will use their funding to develop educational materials or learning resources for students. All projects are expected to be completed by summer 2007. Meanwhile, 2006 also saw HK Electric sponsor the HK Baptist University in the setting up of a RE Information Centre promoting the benefits of "green" energy sources to university students.

清新能源基金推廣可再生能源

港燈積極支持在港研發可再生能源,於二零零六年四月推出「港燈清新能源基金」,以鼓勵本港中、小學及大專院校在校內推行有關可再生能源的研究和應用項目。基金首年共接獲四十五份申請,並選出三所小學、六所中學及三間大專院校接受總額達一百零六萬港元的資助,用於研發太陽能、風能及海浪能等項目。

十二個脫穎而出的項目,無論在創意、技術可行性、 教育及環境效益、可持續性及成本效益等多方面均獲 讃賞。除在校園內建設可再生能源設施外,獲資助的 院校亦可利用基金研製教材。所有項目將於二零零七年 夏季完成。此外,港燈亦於二零零六年贊助香港浸會 大學成立可再生能源資訊中心,向學生推廣可再生能源 的優點。





Singer Leo Ku joined in Lamma Power Station Open Day to boost students' appreciation of electricity.
歌手古巨基參與電廠開放日呼籲學生

珍惜電力。

Smart Power Campaign Hugely Popular among Students

This yearly campaign to promote energy efficiency and conservation was given a big boost with the appointment of local teen idol Leo Ku as Smart Power Ambassador 2006/07. More than twenty thousand people, students in particular, have participated in a host of fun-packed activities during the year including roadshows, radio programmes, Lamma Power Station open days and a writing competition.

HK Electric hopes that by enhancing public understanding of the power sector's important role in modern life, Leo will encourage even more people to adopt and appreciate the smarter use of electricity.

Earlier in the year, the Campaign focused on enhancing public understanding of RE by organising an "Under the Sun" drawing competition for primary school students and a photo competition on "Water" to highlight two common sources of RE. Over 10,000 people participated in the activities throughout the campaign year.

智「惜」用電計劃廣受學生歡迎

為加強推廣能源效益及節約用電的意識,港燈邀得年青偶像古巨基(「基仔」)出任二零零六/零七年智「惜」用電大使。年內超過兩萬名學生及公眾人士參與各項趣味活動,包括展覽、互動電台節目、南丫發電廠開放日及短文創作比賽等。

港燈期望加深公眾認識電力對現代生活的重要性, 並鼓勵更多人珍惜能源,智「惜」用電。透過基仔參與 各項活動協助宣傳,相信信息可以更為受落。

另外,港燈於去年中推廣可再生能源的資訊,包括舉辦「太陽底下繪畫比賽」及「流水萬干攝影比賽」,年內共有 逾萬人參與推廣活動。

Greening Continues with Green Lamma Green

As in previous years, HK Electric Volunteers pitched in to support a number of environmentally friendly initiatives aimed at "greening" Hong Kong during 2006. Specific activities included programmes under "Green Lamma Green" campaign organised in conjunction with the Conservancy Association (CA) to promote eco-tourism and sustainable development on Lamma.

As the 3-year campaign entered its second year, our volunteers helped plant and water another 600 trees, shrubs and floral plants along Lamma's Family Trail in addition to caring for those already planted the year before. Surveys and stakeholders meetings were also arranged to seek local residents' views on ways to promote the sustainability of Lamma Island. Our volunteers also supported CA's initiatives in protecting the ecology in Long Valley by removing apple snails in August 2006 and helped to prevent hill fires on Lamma during Chung Yeung Festival.

Green Kitchen Showcases Electric Cooking Benefits

Quiet, emission free and highly efficient, electric cooking is far more environmentally friendly than cooking with a naked flame. By generating heat directly in the cooking utensils with which the food is in contact, induction electric cooking helps to reduce heat loss and save energy costs.

HK Electric's new display centre promotes environmentally friendly electric cooking. 港燈商用電廚具中心推動電能煮食。

綠綠無窮 一「共創『綠』南丫」活動

一如既往,港燈義工隊於二零零六年大力支持多項緣化 香港的環保活動。其中一項是由港燈與長春社合辦, 旨在促進南丫的生態旅遊及可持續發展的「共創『綠』 南丫J活動。

計劃踏入第二年,義工隊沿著南丫家樂徑協助種植約六百棵樹木、灌木及花卉植物,同時為前年種植的樹苗進行護理工作。此外,我們亦透過問卷調查及會面,了解南丫島居民對推動島上可持續發展的意見。二零零六年八月,義工更支持長春社為保護塱原生態清除福壽螺,並於重陽節在南丫協助防止山火,成功締造無山火紀錄。

商用電廚具中心展示電能煮食優勢

電能煮食的優點在於寧靜、無廢氣及高效能,遠較明火煮食環保。電能廚具可將熱能直接轉到煮食的器具和食物上,從而減少熱能流失及節省能源費用。



To satisfy consumers' increasing desire to "cook electric", we opened a new Electric Commercial Kitchen Centre in North Point in July 2006. The Centre showcases a comprehensive range of equipment for the catering industry and regularly hosts cooking demonstrations so that the public could experience the fun and benefits of electric cooking.

Energy Saving Kit for Secondary School Students

Five years ago, HK Electric was instrumental in the publication and distribution of an energy efficiency education kit for primary schools. Last year, we again joined forces with the Chinese University of Hong Kong, the Education and Manpower Bureau and the Electrical and Mechanical Services Department to create a similar guide for secondary schools. The kit covers five key topics: "Power Production and Transmission", "Domestic Energy Efficiency", "Commercial / Industrial Energy Efficiency", "Energy Efficiency in Transportation" and "Alternative Sources of Energy".

Cleaning the World by Cleaning Hong Kong

To tie in with World Environmental Day on 5 June 2006, HK Electric sponsored a wide range of events aimed at building awareness of waste reduction. Our volunteers were again active in the "Clean Up the World in Hong Kong" campaign with about 100 volunteers joining their counterparts from Green Power to remove festive waste left at the Aberdeen Country Park after Mid-Autumn Festival. We also helped appeal to the public to give up festive habits that threaten the environment, e.g. using elaborate gift wrapping during Chinese New Year.



Volunteering for a cleaner HK. 港燈義工全情投入清潔郊野公園。

隨著電能煮食廣為受落,港燈於三零零六年七月在北角 開設了全新的商用電廚具中心,展示多款適用於飲食業 的專業爐具,中心內還會定期舉行參觀及煮食示範, 讓公眾和業界人士親身體驗電能煮食的樂趣。

學習教材鼓勵節約能源

早於五年前,港燈贊助出版推廣節約能源的小學教材套。去年我們再接再勵,與香港中文大學,教育統籌局及機電工程署聯合製作另一套適用於中學的能源效益教材套。教材套涵蓋五個主題:「能量的產生及輸送」、「家居能源效益」、「商業/工業能源效益」、「運輸能源效益」以及「替代能源」。

清潔香港 清潔世界

為支持二零零六年六月五日的世界環境日,港燈贊助了一連串推廣減少廢物的活動。我們繼續積極參與「世界清潔日在香港」活動,在中秋節翌日,約一百名港燈義工與綠色力量的成員攜手於香港仔郊野公園清理節日廢物。我們亦協助呼籲市民戒除不利環保的節日習慣,例如在農曆新年期間避免使用過量禮物包裝紙。





Ever Vigilant 時刻警覺

Does the thought of scrabbling up the stairs, losing the massive work file in your PC or missing the billion dollar investment opportunity haunt you? Probably not.
You're in Hong Kong! We are there to make sure that power stays on every second of the day, every step of your way.

你曾否憂慮因停電而要爬樓梯、失去大量電腦存檔資料、甚或損失數以億元計的投資機會? 這些情況相信不會出現,因為在你身處的香港,我們會盡一切努力,確保電力供應源源不絕,時刻無間斷。

Quality Policy

In fulfilling the mission to deliver excellent customer services and provide a reliable supply of electricity, The Hongkong Electric Co., Ltd. will strive to:

- Exceed customers' expectations; and
- Excel in quality through continual improvement.

To accomplish this, we will:

- Stress problem prevention rather than simply problem solving;
- Utilise cost-effective and advanced technologies;
- Promote a quality culture and empower employees to act:
- Encourage all employees and contractors to pursue excellence in providing services for the benefits of all stakeholders; and
- Review and enhance the quality systems to international standards and best practices.

Quality Training for Staff

In 2006, a total of 2,975 employee-hours were devoted to quality training.

品質政策

香港電燈有限公司以提供優質的客戶服務及供應可靠的 電力為使命,並致力:

- 超越客戶的需求;及
- 通過持續改進,達至卓越品質。

為達至以上目標,我們會:

- 著重預防措施,而非事後補救;
- 採用具成本效益及先進的科技;
- 促進品質文化,並授權員工,提升其主動性;
- 鼓勵所有僱員及承辦商追求卓越服務,使各業務伙伴 及社會都能獲益;及
- 檢討及完善品質管理系統,達至國際標準及業界最佳 運作方式。

員工「品質」培訓

二零零六年,港燈合共投入二千九百七十五個員工小時 進行「品質」培訓。

99.999% Reliability Rating for 10th Successive Year

2006 marked the 10th successive year since 1997 that HK Electric has achieved a power reliability rating in excess of 99.999%. This remarkable achievement represents a fitting testament to the tireless dedication of every single member of our team.

連續十年取得99.999%的供電可靠佳績

二零零六年是港燈自一九九七年以來,連續十年達到逾 99.999%的電力供應可靠程度,這項傑出成就有賴港燈 全體員工努力不懈,精益求精。

New Services for Customers' Convenience

More user-friendly bill payment options and services were introduced in 2006 for the convenience of our customers, including a new bill settlement facility at 7-Eleven stores across Hong Kong and a new mobile SMS enquiry service for the hearing-impaired. We also offered more credit card choices for auto bill payment. Meanwhile, our Customer Centre was renovated to provide a more comfortable environment for visitors. A newly launched video-phone service at our Pay-in Centre in Central allows customers to enjoy virtual face-to-face interaction with staff at our Customer Centre in North Point.

To strengthen our ties with our stakeholders, regular meetings and visits were held to listen to their views and suggestions and to brief them on our latest corporate developments and newly introduced services. During the year, we invited members of the Customer Liaison Group to a special discussion on the future development of the electricity market as well as a visit to Lamma Winds.

Power Quality Centre Enhances Customer Ties

The Power Quality Centre continues to play a vital role in improving the already high level of advisory services HK Electric offers to commercial and institutional users. In addition to simulations of power quality problems' effects on a variety of electrical installations, visitors to the Centre are shown ways to safeguard their power supplies. Last year, feedback from those taking part in guided tours was extremely encouraging. A brochure was published to help those who are unable to visit the Centre.

新增服務令客戶更添方便

港燈以客為本,年內增設多項簡易的繳費方式及服務,客戶可在全港的「7-11」便利店付賬,亦可選用更多信用卡作自動轉賬繳費。我們亦新增手機短訊查詢服務,歡迎聽覺障礙的客戶使用。港燈客戶中心於去年重新裝修,為訪客提供更舒適的環境。此外,在中區繳費處新安裝了視像通話服務,讓客戶可透過視像通訊聯繫北角客戶中心的客戶服務代表。

我們透過定期面晤和探訪,聽取客戶及其他持份者的 意見和建議,同時亦向他們介紹公司動向和新增服務, 令聯繫更密切。在二零零六年,我們邀請客戶聯絡小組 成員出席有關電力市場未來發展的專題討論。另外, 我們亦安排成員參觀「南丫風采發電站」。

電能質量中心促進與客戶聯繫

港燈設有電能質量中心,為商業及機構用戶提供優質的電力諮詢服務。中心備有展板及儀器介紹及模擬常見的電能質量問題及各種紹解措施和方法,服務深受客戶歡迎。而為方便未能親到中心參觀的訪客,我們特別印備一本小冊子供參考。



Power Quality Centre enhances service to commercial customers. 電能質量中心為商業客戶提供更優質客戶服務。





Caring for Staff and the Community 關懷員工及社群

Everyone knows that electricity has to be treated with respect. With great care and diligence we provide safe and reliable electricity to every home.

And with meticulous equipment design and conscientious working procedures we craft out a safe and healthy working environment for our highly skilled workforce.

眾所周知,電力是必須小心處理的。因此,港燈 員工以一絲不苟及勤奮的工作態度,盡心盡力 地為客戶提供可靠及安全的電力供應。港燈 的專業團隊在精密的儀器和周全的工作流程 配合下,享有一個安全及健康的工作環境。

Health & Safety Policy

In fulfilling the mission to care for our employees and the community which we serve, as well as in pursuit of excellence in safety, The Hongkong Electric Co., Ltd. will strive to:

- Integrate occupational health and safety in all aspects of our business activities; and
- Achieve an accident-free operation.

To accomplish this, we will:

- Sustain a high level of occupational health and safety performance in addition to complying with all relevant legislation;
- Attain continual improvement through the implementation of effective health and safety management systems;
- Furnish our employees with adequate and timely information, training and support, and a safe working environment; and
- Ensure commitments in pursuing an excellent occupational health and safety performance from employees, contractors and suppliers.

Health & Safety Training for Staff

In 2006, a total of 30,733 employee-hours were devoted to health and safety training.

健康及安全政策

香港電燈有限公司以關懷員工及社群和追求安全卓越為 使命,並致力:

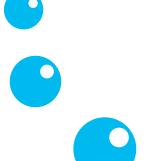
- 將職業健康及安全融入所有業務運作範疇;及
- 邁向無意外營運。

為達至以上目標,我們會:

- 安守有關法例規定,並維持高水平的職業健康及安全表現;
- 全面落實有效的健康及安全管理以求持續改進;
- 為員工提供適時資訊、培訓及支援和一個安全的工作 環境;及
- 要求並確保員工、承辦商及供應商為追求職業健康及 安全優異表現作出承擔。

員工健康及安全培訓

在二零零六年,港燈員工接受健康及安全培訓的時數, 共達三萬零七百三十三小時。





Ensures Peace of Mind

At HK Electric, safety always comes first. The comprehensive groundwork we undertook in advance of our application as a Gas Supply Company testifies to our meticulous care and attention in this area. With the introduction of natural gas for power generation, five Natural Gas Controlled Areas have been designated in which special precautionary measures were put in place. At the Gas Receiving Station, for example, security facilities include not only gas detectors and an electronic locking system, but also CCTV cameras. To remove the least possibility of generating sparks inside these areas, even mobile

phones and cameras are not allowed.

We have also introduced a comprehensive, facility-wide Natural Gas Safety Management System at Unit L9. The System has proved to be of enormous assistance in the gearing of essential procedures for the safe and successful commissioning, operation and maintenance of the Unit's gas facilities and combined cycle gas turbine. The implementation of specially devised Natural Gas safety requirements and procedures and the production of relevant videos for all employees and contractors are other ways in which we are delivering on our safety promise. In 2006, some 2,248 HK Electric and contractor staff at various levels spent a total of 14,255 man-hours on relevant training courses.

天然氣管理系統以保萬全

emphasis on safety.

港燈一直把安全放在首位。我們以謹慎的態度,為引入 天然氣發電作好準備。南丫發電廠已設立五個天然氣 管制地帶,並配合多項特別預防措施。以天然氣接收站 為例,安全設施不但包括天然氣洩漏監察器及電子門鎖 系統,還有閉路電視作監控。管制地帶內不准使用手機 及相機,以防產牛火花引起危險。

港燈員工努力不懈地工作,並以安全為重。

我們亦為 L9 機組引進了周全的天然氣安全管理系統, 確保天然氣機組及相關設施能夠安全及成功地投產及 進行保養測試。港燈亦採取多項措施嚴守安全承諾, 包括推行特定的天然氣安全要求及程序,製備錄影帶 詳述天然氣設施的安全指引,為員工及承辦商提供 安全培訓。在二零零六年,港燈共為近二千二百位 來自公司不同級別及承辦商的員工,提供了合共一萬 四千二百五十五工時的培訓。

A fire drill conducted with the Fire Services
Department in November 2006 further underlined
the effectiveness of the safety measures at L9.
The simulation involved a mock fire sparked by a gas
leak following a lightning strike on the new facility's
gas pressure reducing station. The procedure ably
demonstrated the high safety standards at the
new facility.

H&S Management Exceeds Industry Benchmarks

Safety of a world class standard is a pre-requisite of day-to-day life at any major power utility worldwide. In 2006, HK Electric's health and safety management of its power transmission and distribution (T&D) activities once again succeeded in receiving OHSAS18001 and ISO9001 certification from independent professional auditors. The management system was also audited by Registered Safety Auditors to ensure its compliance with Factories & Industrial Undertakings (Safety Management) Regulation.

Between May and June 2006, our T&D Division supplemented its regular calendar of safety talks and ambassador visits to employees and contractors by organising an Environmental, Health & Safety Month. Targetted at workers involved in T&D activities, the initiative included an advisory video produced in conjunction with the Occupational Safety & Health Council.



Rescue workers in action at the first fire drill at L9. 新機組落成後首個火警演習順利進行。

在二零零六年十一月,港燈與消防處聯手在天然氣機 組舉行消防演習,成功測試 L9機組的有效安全操作。 演習模擬氣體減壓站因受到雷擊而導致氣體洩漏,繼而 引發火警。救援過程中顯示設施達致極高安全水平。

健康及安全表現繼續傲視同儕

所有大型供電機構的日常運作,均須達到世界級的安全標準。二零零六年,港燈再次在輸配電業務的健康及安全管理上獲得獨立專業審核員的認可,並繼續取得「OHSAS18001」及「ISO9001」認證。我們採用的管理系統亦通過註冊安全審核,確保符合工廠及工業經營(安全管理)規例。

除了定期為員工及承辦商安排安全講座及「安全大使」 訪問外,港燈輸配電科在二零零六年五、六月期間舉行 「環境、健康及安全月」活動,以輸配電從業員為對象, 當中包括聯同職業安全健康局合製一套配合主題的 影片,作為培訓及推廣之用。

Health and Fitness Classes Keep Staff on Their Toes!

HK Electric believes that people are its most precious asset. In 2006, we continued to provide influenza vaccinations free of charge for staff and at cost for their family members. As in previous years, we also organised health talks for employees to keep them abreast of medical information. Topics covered included sickness prevention, food nutrition and mental and psychological health. Regular fitness classes such as Yoga, Tai Chi, Aerobics and Line Dancing were also organised at different office locations.

健康及健身課程讓員工保持活力!

港燈相信員工是公司的最寶貴資產。二零零六年,我們繼續為員工及家屬提供免費或成本價的流感疫苗注射,以示關懷。一如往年,我們為員工舉辦多個免費健康講座,如疾病預防、食物營養、精神和心理健康等。港燈亦在不同辦公地點為員工安排各式健身課程,其中以瑜伽、太極、健康舞及排排舞等最受歡迎。





Recognising our Efforts

彰顯傑出成績

Over the years, HK Electric's EQHS activities have been recognised with a variety of prestigious local and international awards. We are honoured to say that, thanks to the loyal and unstinting support of our customers and team, 2006 was no exception.

多年來,港燈在環境、品質、健康及安全等 方面所作的努力獲得廣泛認同,榮獲多個本地 及國際重要殊榮。二零零六年,我們同樣取得 驕人成績,在此我們衷心感謝客戶和全體員工 的鼎力支持。

Lamma Winds Recognised with Green Participant Award

In December 2006, our pioneering Lamma Winds project received the Green Participant Award in the Federation of Hong Kong Industries' prestigious One Factory, One year, One Environmental Project (1-1-1) programme. Established in early 2005, the 1-1-1 Awards recognise Hong Kong and Pearl River Delta industries which have made major improvements in areas such as RE and energy and resource conservation. Officially commissioned on 23 February 2006, the 800 kW wind turbine generated over 800,000 units of electricity, sufficient energy to power 200 homes, in its first year of operation. In doing so, the facility has cut down CO₂ emissions by over 670 tonnes. Emissions of SO₂ and NO_x have also been reduced by over 2,200 kg and 1,200 kg respectively, while particulate emissions have been cut by over 110 kg.

HK Electric Centre Honoured with Energy Efficiency Award

Held on 20 November 2006, the Second "Hong Kong Energy Efficiency Awards" presentation ceremony saw HK Electric Centre honoured with an award for the energy efficiency of its lift installation.

Organised by the Electrical and Mechanical Services Department, the awards encourage the adoption of good energy-saving practices in the public and private sectors.

南丫風采發電站榮獲香港工業總會「綠色計劃公司」獎項

二零零六年十二月,港燈憑着「南丫風采發電站」項目 參與香港工業總會「一廠一年一環保項目」計劃(1-1-1 計劃),並榮獲「綠色計劃公司」獎項。1-1-1計劃於 二零零五年初成立,旨在表揚香港和珠江三角洲地區的 工業,在可再生能源、能源及資源保護方面作出的重大 改善。南丫風采發電站於二零零六年二月二十三日正 式投產,這台八百千瓦風力發電機組於首年運行期間, 共產生超過八十萬度電力,足夠供應二百個家庭使用。 風電取代了部分燃煤發電,減少了超過六百七十噸 二氧化碳排放。二氧化硫和氮氧化物排放量亦分別減少 超過二千二百千克及一千二百千克,而粒狀物排放則 減少超過一百一十千克。

港燈中心獲頒機電工程署能源效益獎

港燈中心內的電梯裝置極具能源效益,在二零零六年 十一月二十日舉行的第二屆「香港能源效益獎」頒獎典禮 上獲獎。該獎項由機電工程署舉辦,旨在鼓勵公營及 私人機構採取有效的節能措施。



2006 Customer Relationship Excellence Awards

We received three top Customer Relationship
Excellence Awards organised by the Asia Pacific
Customer Service Consortium. They included
"Call Centre of the Year (Below 50 Seats)",
"Integrated Support Team of the Year" and
"Mission Critical Support Service of the Year"
awards which recognise high quality services,
efficient integration of different customer functions
and outstanding supply reliability.



On 15 October 2006, HK Electric teams demonstrated the breadth and depth of their safety knowledge by finishing as Champion, 1st Runner-up and 2nd Runner-up in the 2006 Occupational Safety & Health (OSH) Quiz Cup Final. Co-organised by the OSH Council and the Labour Department, the event attracted a total of 190 teams from local utilities and organisations. This is the ninth year that a team from HK Electric has won the prestigious Championship. Victory was even sweeter as another HK Electric team won the Plate Final at the same event.

Meanwhile, we achieved triple-triumph at the 2006 Occupational Safety and Health (OSH) Forum and Awards Ceremony by winning the Gold Award for Safety Technological Achievement, the Silver Award for Best Presentation and a Meritorious Award for Safety Promotion. This represented an outstanding achievement by any standards. In winning these awards, we beat a strong shortlist of 29 entrants that had been whittled down from an initial field of 165 submissions from 82 other companies and utilities suppliers.



It is teamwork behind HK Electric's customer service excellence.

港燈優質的顧客服務屢獲殊榮,全靠同事上下一心。

二零零六年傑出顧客關係大獎

港燈憑著優質的顧客服務,在亞太顧客服務協會舉辦的「亞太傑出顧客關係服務獎」中連奪三個獎項,分別是「最佳客戶熱線中心(五十席位以下)」、「最佳綜合支援隊」及「最佳關鍵任務支援服務」大獎。今次獲獎充份肯定港燈在提供全面的顧客服務、卓越的後勤支援及可靠供電等方面的優秀表現。

職安健大獎

港燈團隊在職安健賽事中屢奪佳績,二零零六年亦不例外。在十月十五日舉行的「職安健常識問答盃賽」決賽中,港燈隊表現出色,囊括冠、亞及季軍。比賽由勞工處與職業安全健康局合辦,共吸引了來自不同機構的一百九十支隊伍參加。今次亦是港燈團隊第九度贏取冠軍殊榮。另一支港燈團隊也在同項賽事中奪得碟賽冠軍。

此外,港燈亦在二零零六年香港職業安全健康大獎分享會暨頒獎典禮上,取得優秀成績,獲頒「安全科技成就大獎」金獎、「最佳演繹獎」銀獎及「宣傳推廣大獎」優異獎。今次比賽競爭激烈,共有八十多家機構遞交一百六十多個項目參賽。最終港燈能夠從二十九個入圍者中脫穎而出,贏取獎項。





In Pursuit of Excellence 時刻追求卓越

Recent years have seen HK Electric continue to set itself daunting targets in the areas of Environment, Quality, Health and Safety. All too aware that even the most consistently high reliability ratings still leave a little room for improvement, our teams will continue to push ourselves to the limit on our customers' behalf.

港燈服務精益求精,在過去多年不斷在環境、 品質、健康及安全等方面力求卓越。就如供電 的可靠程度,縱使已達世界級水平,但我們未 敢自滿,仍然力臻完美,回應客戶的期望。

2006 Performance Overview

In last year's EQHS Report, we promised to redouble our efforts to further improve our performance levels in the four vital areas of Environment, Quality, Health and Safety. We are pleased to announce that all targets for 2006 were achieved.

二零零六年回顧

在去年的《環境、品質、健康及安全報告》中,我們承諾 要在環境、品質、健康及安全等四個重要領域中再取 佳績,在此我們欣然宣佈目標已達。



Targets for 2006 二零零六年的目標

Targets for 2006 二零零六年的目標			
ENVIRONMENT 環境	STATUS 狀況	QUALITY 品質	STATUS 狀況
To comply with relevant environmental legislation with zero prosecution or abatement notice. 遵守相關的環保法例,實現零檢控或消滅通知。	\bigcirc	To expand the plant ownership scheme with at least six newly added projects pertaining to power generation activities. 拓展電廠擁有權計劃,至少新增六個與發電有關的項目。	\bigcirc
To control SO_2 , NO_x and particulate emissions from Lamma Power Station within licence limits. 将南丫發電廠的二氧化硫、氮氧化物及粒狀物排放量控制 在牌照的規限之內。	\bigcirc	To include the following customer satisfaction indices pertaining to the activities of Projects Division: 納入以下與工程建設科工作有關的客戶滿意度指標:	\bigcirc
To control effluent discharge from Lamma Power Station within licence limits. 將南丫發電廠的污水排放控制在牌照的規限之內。	\bigcirc	 Trenching Performance in Highways Department Audit Inspection (≥ 99% compliance) 路政署審核檢查的壕坑工程表現(符合率≥ 99%) 	
To commission HEC's first gas fired combined cycle generating unit in 2006. 港燈首台燃氣聯合循環發電機組於三零零六年投產。	\bigcirc	Verbal Complaint Response (≤ 1.5 hours) □頭投訴回應時間 (≤ 1.5 小時)	
To complete the EIA study and obtain Environmental Permit for the L4/5 FGD Retrofit project by June 2006. 於二零零六年六月前完成環境影響評估研究,並獲取L4/5 煙氣脫硫裝置(FGD)加裝工程的環境許可證。	\bigcirc	Written Complaint Response Time (≤ 7 working days) 書面投訴回應時間(≤ 7 個工作天)	
		Electricity Supply 電力供應	
To procure the necessary equipment for the GT57 Gas Firing project. 為 GT57 燃氣工程購買 必需的設備。	\oslash	Reliability Rating of Electricity Supply (Better than 99.998%) 電力供應可靠程度(超過 99.998%)	\bigcirc
To participate in the Wastewise scheme organised by EPD. 参與環境保護署舉辦的明智減廢計劃。	\oslash	Average Notification Period before Planned Suspension of Electricity (7 days in advance) 預先通知暫停供電平均通知時間(7天前)	\bigcirc
To obtain Electrical and Mechanical Services Department Energy Efficiency Registration Scheme for Hongkong Electric Centre's lift installations.	\bigcirc	Average Time for Supply Restoration after Interruption of Supply (Within 2 hours) 電力中斷後平均恢復電力時間(兩小時內)	\bigcirc
為港燈中心的電梯裝置取得機電工程署的能源效益註冊。 To launch The Hongkong Electric Clean Energy Fund. 成立港燈清新能源基金。	\oslash	Site Investigation for Power Quality Enquiries (Within 3 working days) 電能質量查詢的現場調查 (3 個工作天內)	\bigcirc
To complete an Exhibition Centre on the Wind Turbine site with Renewable Energy Exhibits open to the public by the first quarter of 2006. 於二零零六年首個季度前,完成風力發電站展覽中心的興建工程。	\bigcirc	Connection of Supply 電力接駁	
		Not Requiring Inspection (Within the next working day) 毋須驗線(下一個工作天內)	\bigcirc
两葉工任。 To purchase two hybrid vehicles for trial and evaluation. 購買兩部混合動力汽車・以進行試驗及評估。	\oslash	Meter Installation after Satisfactory Inspection (Immediate) 驗線合格後安裝電表(即時)	\bigcirc
		Provide Inspection Appointment for Customer Installation (Within 2 working days in a 1.5-hour time band) 接駁電力驗線的預約服務(兩個工作天內的1.5小時時段)	\bigcirc
		Reconnection of Supply after Payment of Outstanding Charges (Same day as payment is received) 清繳逾期電費後重新接駁電力(收到繳費後當日)	\bigcirc

Closure of Electricity Account at the Request of the Customer (Within 2 working days) 因應客戶要求終止電力賬戶(兩個工作天內) Deposit Refund by Cheque after Full Authorisation by the Customer and Closure of Account (Within 5 working days) 客戶辦妥所有授權手續及取消賬戶後,以支票退回按金(5 個工作天內) Special Request on Meter Reading (Within the next working day) 申請提供特別讀表服務(下一個工作天內) Processing of Concessionary Tariff Application upon Confirmation from the Assessment Centre (Within 2 working days) 收到審核中心確認後,處理有關電費優惠計劃的申請

HEALTH AND SAFETY 健康及安全 To reduce the Disabling Injury Frequency Rate (DIFR) in 2006 as compared to 2005. 將二零零六年的缺勤意外發生率降至低於二零零五年的水平。 To reduce the Disabling Injury Severity Rate (DISR) in 2006 as compared to 2005. 将二零零六年的缺勤意外嚴重率降至低於二零零五年的水平。

Customer Enquiries 客戶查詢

計劃]認可,追溯至國際標準)

(兩個工作天內)

Average Waiting Time for Counter Services at Customer Centre (Less than 3.5 minutes)



客戶中心櫃位服務平均等候時間(少於3.5分鐘)

Meter Testing (Accuracy traceable to international standards via HOKLAS accredited Standards Laboratory) 電表測試(標準實驗室的計量準確程度獲「香港實驗所認可

Average Waiting Time for Telephone Enquiry Services by Customer Services Representatives (Less than 9 seconds) 由客戶服務代表接聽電話查詢平均等候時間(少於9秒)



Reply to Written Enquiries on Customer Accounts



(Within 7 working days after receipt)

回覆有關賬戶的書面查詢(接獲查詢後7個工作天內)



Site Investigation for Electricity Consumption Enquiries (Within 3 working days)



耗電量查詢的現場調查(3個工作天內)

Emergency Services 緊急召援

Average Waiting Time for Telephone Calls to Customers Emergency Services Centre (Less than 9 seconds) 致電客戶緊急服務中心平均等候時間(少於9秒)



Average Arrival Time to Scene in Urban Areas in Response to Emergency Calls (Less than 28 minutes)



回應市區內緊急召援之平均到達現場時間(少於28分鐘)

Summary of Statistics 統計數字概要

ENVIRONMENT 環境	2006	2005	2004		
Electricity Generated 發電量					
Total electricity generated [GWh] 總發電量 [百萬度]	12,199	12,198	12,018		
Fuel Consumed 消耗的燃料					
Coal [kT] 燃煤 [千公順]	4,088	4,327	4,242		
Light gas oil [kT] 輕柴油 [千公順]	5	5	5		
Heavy fuel oil [kT] 重燃油 [干公順]	6	5	5		
Natural gas* [kT] 天然氣* [千公順]	98	-	-		
Licence Compliance 符合牌照規定					
No. of Licence Limit Exceedence 超出牌照規限的數目	0	0	0		
Percentage of compliance [%] 符合率 [%]	100	100	100		
Total Air Emission 總排氣量					
SO ₂ [kT] 二氧化硫 [千公順]	30.0	31.0	35.7		
NO _x [kT] 氮氧化物 [千公順]	17.3	18.5	16.4		
Particulates [kT] 粒狀物 [千公順]	1.3	1.5	1.9		
CO ₂ [million T] 二氧化碳 [百萬公噸]	9.85	9.94	10.40		
Ash / Gypsum 煤灰/石膏					
Ash produced [kT] 產生的煤灰 [千公順]	409	437	442		
Ash sold for industries [kT] 出售的煤灰 [干公順]	399	419	421		
Gypsum sold for industries [kT] 出售的石膏 [干公順]	67	76	77		
Waste Oils 廢油					
Waste oil recycled [litres] 廢油循環再造總量 [公升]	7,600	12,400	6,000		
Waste oil for disposal [litres] 廢油回収處理總量 [公升]	5,600	3,550	4,800		
Water Consumption / Discharge 耗水量/	廢水排放量				
Town water consumption [thousand m³] 耗水量 [千立方米]	1,515	1,477	1,391		
Wastewater discharge [thousand m³] 廢水排放量 [干立方米]	421	284	343		
Noise Abatement Notice 消除噪音通知書					
Number of Notice received 收到的通知書數目	0	0	0		
ISO Certificates ISO 品質檢定認可證書					
Number of ISO 14001:2004 Certificates ISO 14001:2004品質檢定認可證書總數	1	1	0		

QUALITY 品質	2006	2005	2004
Customer Satisfaction Indices 客戶滿	意指標		
Average rating of satisfaction level (maximum mark for each index is 5.0) 滿意度平均評分(每個指數最高為5分)	4.5	4.5	4.5
Performance Pledges 服務承諾			
Number of performance pledges 服務承諾總數	18	18	18
Percentage achieved [%] 達標率 [%]	100	100	100
Reliability 可靠程度			
Electricity supply reliability [%] 電力供應可靠程度 [%]	>99.999	>99.999	>99.999
Certificate Accreditation 認可證書			
Number of ISO 9001:2000 Certificates ISO 9001:2000 品質檢定認可證書總數	9	9	9
Number of HOKLAS Certificates 香港實驗所認可計劃認可證書總數	3	3	3
HEALTH AND SAFETY 建康及安全	2006	2005	2004
Number of fatalities 死亡宗數	0	0	0
Number of disabling injuries 缺勤意外數字	4	9	5
Disabling Injury Frequency Rate (DIFR) per 200,000 employee-hours worked) 欧勤意外發生率 (每20萬個工作小時)	0.17	0.38	0.21
Number of days lost/charged (no. of employee days) 員失 / 缺勤的天數 (員工天數)	84	221	48
Disabling Injury Severity Rate (DISR) (per 200,000 employee-hours worked) 缺勤意外嚴重率 (每20萬個工作小時)	3.6	9.3	2.0
Longest period without a lost-time injury ino. of days) 最長的無缺勤期(天數)	217	98	143
Number of reported traffic accidents (no. of cases) 通報的交通事故宗數(個案數目)	28	25	33
Traffic Accident Frequency Rate (TAFR) (no. of cases per million km travelled) 交通意外發生率(每行走百萬公里的個案 數目)	11.9	10.6	13.2
* HEC's first liquefied natural gas-fuelled combined	avala gaparating	unit atartad	

- * HEC's first liquefied natural gas-fuelled combined cycle generating unit started commercial load in October 2006.
- * 港燈首台以液化天然氣為燃料的聯合循環發電機組,於二零零六年十月正式投入商業運行。



Targets for 2007 二零零七年的目標

ENVIRONMENT

To comply with relevant environmental legislation with zero prosecution or abatement notice.

遵守相關的環保法例,實現零檢控或消減通知。

To control SO_2 , NO_x and particulate emissions from Lamma Power Station within licence limits.

將南丫發電廠的二氧化硫、氮氧化物及粒狀物排放量控制在牌照的規限之內。

To control effluent discharge from Lamma Power Station within licence limits. 將南丫發電廠的污水排放控制在牌照的規限之內。

To award contract for the design and engineering work for the L4/5 Low $NO_{\rm x}$ System Retrofit project.

為 L4/5 低氮氧化物燃燒器加裝工程訂立設計及工程合約。

To complete the modification work for the GT57 Gas Conversion project. 完成 GT57 燃氣工程的改裝工作。

To continue to participate in the Wastewise scheme organised by Environmental Protection Department and to obtain Gold Wastewise Logo Ranking.

繼續參與環境保護署舉辦的明智減廢計劃,並獲得「卓越明智減廢」標誌。

To obtain Electrical and Mechanical Services Department Energy Efficiency Registration for Marsh Road Substation Building.

為馬師道變電站取得機電工程署的能源效益註冊。

To add new environment-friendly vehicles to HEC's fleet.

為港燈的營運車隊添置新型環保車輛。

To launch a centralised Environmental Enquiry Management System for the whole Company.

在公司推行一套有關環境事務查詢的中央管理系統。

QUALIT 品質

To further expand the plant ownership scheme with at least six newly added projects pertaining to power generation activities.

進一步拓展電廠擁有權計劃,至少新增六個與發電有關的項目。

To enhance the following customer satisfaction indices pertaining to the activities of Projects Division:

提高以下與工程建設科工作有關的客戶滿意度指標:

Trenching Performance in Highways Department Audit Inspection (≥ 99.1% compliance);

路政署審核檢查的壕坑工程表現(符合率≥ 99.1%);

- Verbal Complaint Response Time (≤ 1.0 hours);
 □頭投訴回應時間(≤ 1.0 小時);
- Written Complaint Response Time (≤ 7 working days)
 書面投訴回應時間(≤ 7個工作天)

Electricity Supply 電力供應

Reliability Rating of Electricity Supply (Better than 99.998%) 電力供應可靠程度(超過99.998%)

Average Notification Period before Planned Suspension of Electricity (7 days in advance)

預先通知暫停供電平均通知時間(7天前)

Average Time for Supply Restoration after Interruption of Supply (Within 2 hours) 電力中斷後平均恢復電力時間 (兩小時內)

Site Investigation for Power Quality Enquiries (Within 3 working days) 電能質量查詢的現場調查 (3 個工作天內)

Connection of Supply 電力接駁

Not Requiring Inspection (Within the next working day) 毋須驗線 (下一個工作天內)

Meter Installation after Satisfactory Inspection (Immediate) 驗線合格後安裝電表(即時)

Provide Inspection Appointment for Customer Installation (Within 2 working days in a 1.5-hour time band) 接駁電力驗線的預約服務 (兩個工作天內的1.5小時時段)

Reconnection of Supply after Payment of Outstanding Charges (Same day as payment is received)

清繳逾期電費後重新接駁電力(收到繳費後當日)

Electricity Accounts & Meters 電力賬戶及電表

Closure of Electricity Account at the Request of the Customer (Within 2 working days)

因應客戶要求終止電力賬戶(兩個工作天內)

Deposit Refund by Cheque after Full Authorisation by the Customer and Closure of Account (Within 5 working days)

客戶辦妥所有授權手續及取消賬戶後,以支票退回按金(5個工作天內)

Special Request on Meter Reading (Within the next working day) 申請提供特別讀表服務(下一個工作天內)

Processing of Concessionary Tariff Application upon Confirmation from the Assessment Centre (Within 2 working days)

收到審核中心確認後,處理有關電費優惠計劃的申請(兩個工作天內)

Meter Testing (Accuracy traceable to international standards via HOKLAS accredited Standards Laboratory)

電表測試(標準實驗室的計量準確程度獲[香港實驗所認可計劃]認可·追溯至國際標準)

Customer Enguiries 客戶香語

Average Waiting Time for Counter Services at Customer Centre (Less than 3.5 minutes)

客戶中心櫃位服務平均等候時間(少於3.5分鐘)

Average Waiting Time for Telephone Enquiry Services by Customer Services Representatives (Less than 9 seconds)

由客戶服務代表接聽電話查詢平均等候時間(少於9秒)

Reply to Written Enquiries on Customer Accounts (Within 7 working days after receipt)

回覆有關賬戶的書面查詢(接獲查詢後7個工作天內)

Site Investigation for Electricity Consumption Enquiries (Within 3 working days) 耗電量查詢的現場調查(3個工作天內)

Emergency Services 緊急召援

Average Waiting Time for Telephone Calls to Customers Emergency Services Centre (Less than 9 seconds)

致電客戶緊急服務中心平均等候時間(少於9秒)

Average Arrival Time to Scene in Urban Areas in Response to Emergency Calls (Less than 28 minutes)

回應市區內緊急召援之平均到達現場時間(少於28分鐘)

HEALTH AND SAFETY 健康及安全

To reduce the Disabling Injury Frequency Rate (DIFR) in 2007 as compared to 2006.

將二零零七年的缺勤意外發生率降至低於二零零六年的水平。

To reduce the Disabling Injury Severity Rate (DISR) in 2007 as compared to 2006. 將二零零七年的缺動意外嚴重率降至低於二零零六年的水平。

Why Not Share YOUR Ideas and Opinions with Us?

At HK Electric, we believe our track records in the vital areas of environmental, quality, health and safety performance are every bit as important as our balance sheet. As a result, we would very much like to hear your feedback on our performance in all four areas during 2006.

To share your comments, please contact us at:

Projects Division,

The Hongkong Electric Co., Ltd., 44 Kennedy Road, Hong Kong

Fax: (852) 2537 1013 Email: mail@hec.com.hk

Website: http://www.hec.com.hk

June 2007

歡迎與我們分享您的想法及觀點

港燈相信,環保、品質、健康及安全方面的表現與業績 同樣重要。因此,我們歡迎您就三零零六年我們在上述 四方面的表現交換意見。

如有任何意見,請與我們聯絡:

香港

堅尼地道44號

香港電燈有限公司

工程建設科

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二零零七年六月

