

## Keeping Hong Kong lively

In the city that never sleeps we help keep life on the go, 24 hours a day – everyday.



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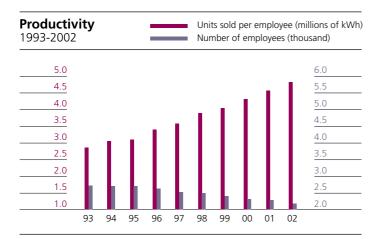


### Generation

Hongkong Electric adopts a prudent development policy with regard to adding additional gererating capacity. As maximum demand growth in 2002 was lower than expected, we took the initiative to defer the commissioning of the first 300 MW generating unit of the Lamma Power Station Extension by one year from 2004 to 2005. Site formation, piling and civil works have been rescheduled to meet this new programme.

We are now able to generate an additional 115 MW of power with the same fuel input by recovering waste heat energy as a result of the conversion in 2002 of two existing gas turbines into a combined cycle unit. This improvement in fuel efficiency will benefit our customers and the environment.

Reliability during the peak load season was almost 100% due to the introduction of a Reliability Assurance Scheme by the Operations Department. To further improve the reliability of our equipment and to reduce operational and maintenance costs,



Commercial **Units Sold** Domestic 1993-2002 (millions of kWh) Industrial 8,000 7,000 6,000 5,000 4,000 3,000 2,000 1,000 0 93 94 95 96 97 00 98 99 01 02

we extended the concept of "plant ownership" to nine plant areas. Staff are designated "owners" of specific plant and are directly responsible for plant performance. Due to the very encouraging results, we intend to expand this scheme further in 2003.

Coal continued to be our primary fuel, with 4.1 million metric tonnes consumed in 2002. We purchased the coal from diverse sources in China, Indonesia and Australia, looking for a combination of reliable supply and attractive prices. During the year, our coal-fired units remained highly efficient. A life assessment study on our high merit machines to identify potential defects showed that the machines will maintain high reliability in the years to come.

Additional savings were made when we successfully carried out seawater cleaning of a number of Flue Gas Desulphurization absorbers. This innovative procedure was developed in-house.

Hong Kong's position as a world-class city depends on reliable energy from Hongkong Electric.

# Maintaining

## 99.999% supply reliability around the clock is essential for Hong Kong's prosperity

### **Transmission and Distribution**

04:00

During 2002, Hongkong Electric sold a total of 10,375 million kWh of electricity to our customers. Of this, commercial sales represented 72.8%, domestic sales represented 22.6% and industrial sales represented 4.6%. Despite cooler weather from August to December, we recorded a 1.3% increase in sales for the commercial sector for the year. However, this was offset by a small decline of 0.6% in sales to the residential sector, which is very sensitive to weather. Also the number of industrial customers continues to shrink and sales to the industrial sector declined 4.3%, giving an overall increase in total sales for the year of 0.6%.

The Transmission and Distribution Division (T&D) maintained its record of impressive supply reliability in 2002, achieving 99.999% for the seventh consecutive year. The high reliability was due to our continuous enhancement programmes aimed at upgrading the equipment and network of our transmission and distribution systems.

### Major projects that enhanced our reliability

T&D continued to review and improve the transmission and distribution system in 2002. Major transmission projects included the commissioning of the Cyberport 275 kV Switching Station, Tamar 275 kV Switching Station, Tamar 132 kV Switching Station and Tamar 275/22/11 kV Zone Substation. The 22 kV Zone Substation at Tamar was the first of its kind in Hong Kong. The 22 kV distribution is the most effective means of expanding our electricity distribution network to meet increased demand.

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T&D completed many projects relating to the distribution system. We commissioned 67 new 11 kV distribution substations, bringing the total number of distribution substations to 3,487. During the year, we laid 68 km of 22 kV cable, 142 km of 11 kV cable and 73.6 km of LV cable for new supply and system reinforcement.

BUSINESS REVIEW



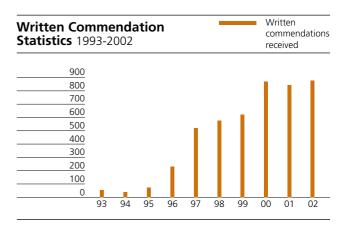
### Encouraging the Effective Use of Electricity

Hongkong Electric encourages the effective use of electricity to conserve resources. We initiate programmes to educate the public that, when used wisely, electricity has many advantages over other sources of energy, such as high energy efficiency, low noise, low flue gas and greater cost efficiency. Accordingly, we have been promoting electrical appliances to the community. In 2002, we carried out promotions to households, property developers, hotels and hospitals. Many large Chinese restaurants are adopting electric equipment in their kitchens.

### Maintaining Quality and Performance

T&D always strives to maintain high quality and effective performance, as evidenced by its awards of ISO 9001/9002 certification from the Hong Kong Quality Assurance Agency. In 2002,

ISO 9001 certifications for trench work and safety management were successfully converted to the latest 2000 version. Additional ISO certificates will be upgraded in 2003.



# Aiming

## for ever higher service standards to help maximise convenience and quality of life

### **Customer Service**

Hongkong Electric has always been at the forefront of customer service. In 1992, we took the initiative to set up a Customer Liaison Group (CLG) to provide an effective communication channel with our customers that would help us improve the quality of our services. The CLG celebrated its tenth anniversary last year as we continued to hold regular meetings and provide a sounding board for our customers.

We continued to pioneer the use of the latest communications and Internet technology. In 2002, our Computer Telephony Integration System in our call centre was further enhanced to provide more personalised telephone enquiry services. We made a series of enhancements to the Account-On-Line service, which offers our customers round-the-clock interactive access to their electricity account. We further enriched the Internet homepage for customer services with more intuitive and interactive programmes.

The Company received the Web Care Award from the Internet Professionals Association (iProA) for the text-based homepage we specially developed for the visually impaired. This innovation follows an earlier one when we began creating brochures and bills in Braille in 1994. We were the first company in Hong Kong to introduce such a service.

### **Pledging Our Best**

Hongkong Electric continues to innovate and improve. We achieved or surpassed all of our 18 pledged service standards. In particular, we





significantly lowered the "Average Arrival Time to Scene in Urban Areas in Response to Emergency Calls" from the pledged 28 minutes to 21 minutes and reduced the "Average Time for Supply Restoration After Interruption of Supply" from the pledged 2 hours to 1 hour 29 minutes.

We added a new service pledge: "Processing of concessionary tariff application within two working days upon confirmation from the assessment centre."

Due to these efforts, the Company received a record number of 890 unsolicited commendations from customers last year.

18 pledged service standards: every one achieved, many surpassed.

# Encouraging

our talented people to continually improve performance



### **Our People**

The backbone of the Hongkong Electric Group is our dedicated staff who work tirelessly striving for excellence. We support them by providing the right tools, regular training and a safe working environment.

#### Training and career development

Hongkong Electric continued to place heavy emphasis on training and career development. The Generation Division spent over 69,000 manhours on training and career development, while T&D invested more than 14,000 man-hours. In the process of improving the competencies of our staff, we identified high-calibre people who will be our next generation of senior managers.

### Staff activities

Hongkong Electric continued to organise various social, recreational and community activities for our staff. We organised a variety of inter-company and inter-departmental sports competitions and enjoyed good results. The Company also encouraged staff to participate in various fund-raising activities for charity organisations and green groups such as The Community Chest, the Association of Round Tables in Hong Kong, Worldwide Fund for Nature Hong Kong, The Conservancy Association, Green Power, and Friends of the Earth.

With the Company's support, a volunteer team has been formed which gives our employees the opportunity to participate in meaningful projects that help the less fortunate in society, improve education or protect the environment.

#### Making health and safety a priority

Hongkong Electric believes in "safety first". Not only do we give high priority to the health and safety of all our people, but we also exercise a keen duty of care to the contractors who work with us and to the general public while performing our various business activities.

The Company regularly monitors and reviews health and safety plans and performance targets for continual improvement to achieve the ultimate goal of accident-free operations.



The Company encourages and supports staff activities that benefit both the environment and the community.

T&D has implemented a safety management system (SMS) in accordance with the requirements of the ISO 9001 international quality management system standard and the Occupational Health & Safety Assessment Series (OHSAS) 18001 safety management system standard. The objective is to establish a well structured management and quality system for implementing our safety policy and to map out, if necessary, improvement plans for enhancing the safety and quality of our T&D activities.

The system was successfully certified to ISO 9001:2000 in June 2002. In November it successfully passed an independent audit in line with newly introduced regulations.

Hongkong Electric out-performed 102 other teams from 52 local companies to win the Championship for the sixth consecutive year of the 2002 Occupational Safety & Health Quiz jointly organised by the Occupational Safety and Health Council and the Labour Department. We won the Inter-company Safety Quiz 2002 for the sixth time in the nine-year history of the quiz.

The Company also won the Silver Award for Safety Technological Achievement in the 2002 Occupational Safety & Health Award Competition.

# Fulfilling



### our responsibilities to the people of Hong Kong and inspiring the next generation



### **Corporate Citizenship**

Hong Kong Electric abides by its responsibility to contribute to the community and protect the environment.

### Putting the Environment First

Over the past 10 years, Hongkong Electric has invested over HK\$5 billion on environmental protection measures. We use clean technologies to reduce emissions and minimise the impact on the environment. We also continuously monitor and control noise and water impact levels.

The Lamma Environmental Management System (LEMS), established in 2001 to focus on environmental protection and to maximise the reuse of waste materials, is working well. As part of our effort to reduce wastewater discharge, a closed circuit submerged scraper conveyor was retrofitted to all older units to handle bottom ash from the boiler furnace. This will not only reduce discharge into the sea, but will also facilitate industrial utilisation of the bottom ash.

### Demand Side Management (DSM)

Demand Side Management (DSM) is the implementation of measures to influence the level and timing of demand for electricity by consumers. When successfully promoted, it can lead to a cleaner, healthier environment and savings in power consumption. Last year the Company began the second half of a 3-year DSM initiative with the Government. Through mass multimedia, we continued our efforts to provide our customers with information on energy efficiency and conservation. We also initiated an energy efficiency education programme for primary school students so they can be introduced to the concepts of conservation at an early age.

### **Green Projects**

Hongkong Electric has sponsored and participated in many environmental projects over the years. In 2002, we were a title sponsor of "Clean Up the World in Hong Kong".

The Company supported research on renewable energy in Hong Kong and has funded several pilot projects and feasibility studies on sustainable development.

### Reaching Out to the Community

Hongkong Electric continued to participate in many community events. In recognition of our charitable support, the Company received The Community Chest's Award of Distinction for our participation in such activities as "Corporate and Employee Contribution Programme", "Walks for Millions" and "Dress Casual Day". We also received a Caring Company Award from The Hong Kong Council of Social Service.

Hongkong Electric has always been responsive to the needs of its less well-off customers. In 1994, we were the first public utility to introduce a concessionary tariff scheme for the underprivileged by offering tariff discounts to the elderly on public assistance. The scheme was later extended to the disabled and single parent families, and in January 2002 we added the unemployed to the scheme. The scheme offers a 50% discount for the first 200 units of electricity consumed in a month, and an exemption from paying a deposit and minimum charge.

The Company established The Hongkong Electric Centenary Trust in 1990 to provide financial assistance to high school students and support services for the elderly. Each year, the Trust awards scholarships. So far, \$3.74 million has been dispersed, benefiting 1,870 students. In addition, the Trust has donated \$3.86 million to benefit the elderly.

# Broadening

# our scope of overseas investment in power generation, transmission and distribution

### **International Investments**

Hongkong Electric Holdings Limited (HEH) adopts a prudent investment strategy of identifying business opportunities that offer a high degree of earnings predictability at acceptable levels of risk. We concentrate on investments in the power generation, transmission and distribution sector.

### ETSA Utilities, Australia

ETSA Utilities is the sole electricity distributor in the State of South Australia. It was acquired in January 2000 in equal partnership with Cheung Kong Infrastructure Holdings Limited (CKI).

In 2002, ETSA achieved a solid financial and operational performance. Earnings before interest, tax, depreciation and amortisation



From the largest sporting venues to city centre offices and suburban homes, CitiPower keeps Melbourne energised for growth.

(EBITDA) stood at A\$404 million, this being satisfactory growth over 2001. We achieved this increase despite lower than expected throughput caused by the mildest summer ever experienced in South Australia.

ETSA's supply reliability level for the year improved significantly.

#### **Powercor Australia Limited**

Powercor Australia is the State of Victoria's largest electricity distributor, with a network covering around 64% of the State. It is also jointly owned by HEH and CKI, having been acquired in September 2000.

Powercor had a successful year in 2002 with EBITDA at A\$359 million. Almost 18,000 new

customer connections were made, representing a growth rate of nearly 3%. We achieved the best ever supply reliability result for our customers, despite an exceptional drought and some violent weather conditions in the last four months of the year.

### CitiPower I Pty Ltd, Australia

In 2002, HEH and CKI further consolidated their position as Australia's leading energy distributor with the successful acquisition of CitiPower I Pty Ltd for a consideration of A\$1.418 billion. CitiPower previously consisted of a network distribution business and retail operation, while we only acquired the regulated distribution activities of the company. This is consistent with the same practice followed with regard to both





the ETSA and Powercor transactions, so that we could focus on building a strong critical mass in power distribution rather than dealing with the retail side which requires strong local retail reach and involves higher levels of business risk.

CitiPower distributes approximately 5,300 million kWh of electricity to around 265,000 connected customers concentrated in the densely populated Melbourne central business district and inner suburban areas. Within its distribution region are the headquarters of some of Australia's largest and most reputable companies, and cultural and sporting venues. It is the most reliable distribution network in Australia.

The acquisition of CitiPower was completed on 30th August 2002, so the results cover a fourmonth period only. The EBITDA was A\$62 million.

### Union Power Development Company Limited (UPDC), Thailand

In 2001, the Group acquired a 26% interest in a power plant project in Thailand through a joint venture company – Union Power Development Company Limited (UPDC). The project was originally conceived as a 1,400 MW coal-fired power plant located southwest of Bangkok. The Thai government has, however, recently approved in principle a change from coal firing to gas burning. Negotiations continue on the detailed planning of this project.

### Associated Technical Services Limited (ATS)

Established in 1975, Associated Technical Services Limited (ATS) is a wholly-owned subsidiary of HEH. It has developed into a versatile multidiscipline engineering firm, offering a full range of professional consultancy and engineering services. We have completed over 140 projects worldwide covering such areas as thermal power plants, substations, and land and submarine cabling. 2002 was another satisfactory year for ATS. We completed two projects and continued work on three more in Australia, Taiwan and Malaysia. We secured a new contract to provide field engineering services to a 4 x 360 MW Thermal Power Plant in Turkey.