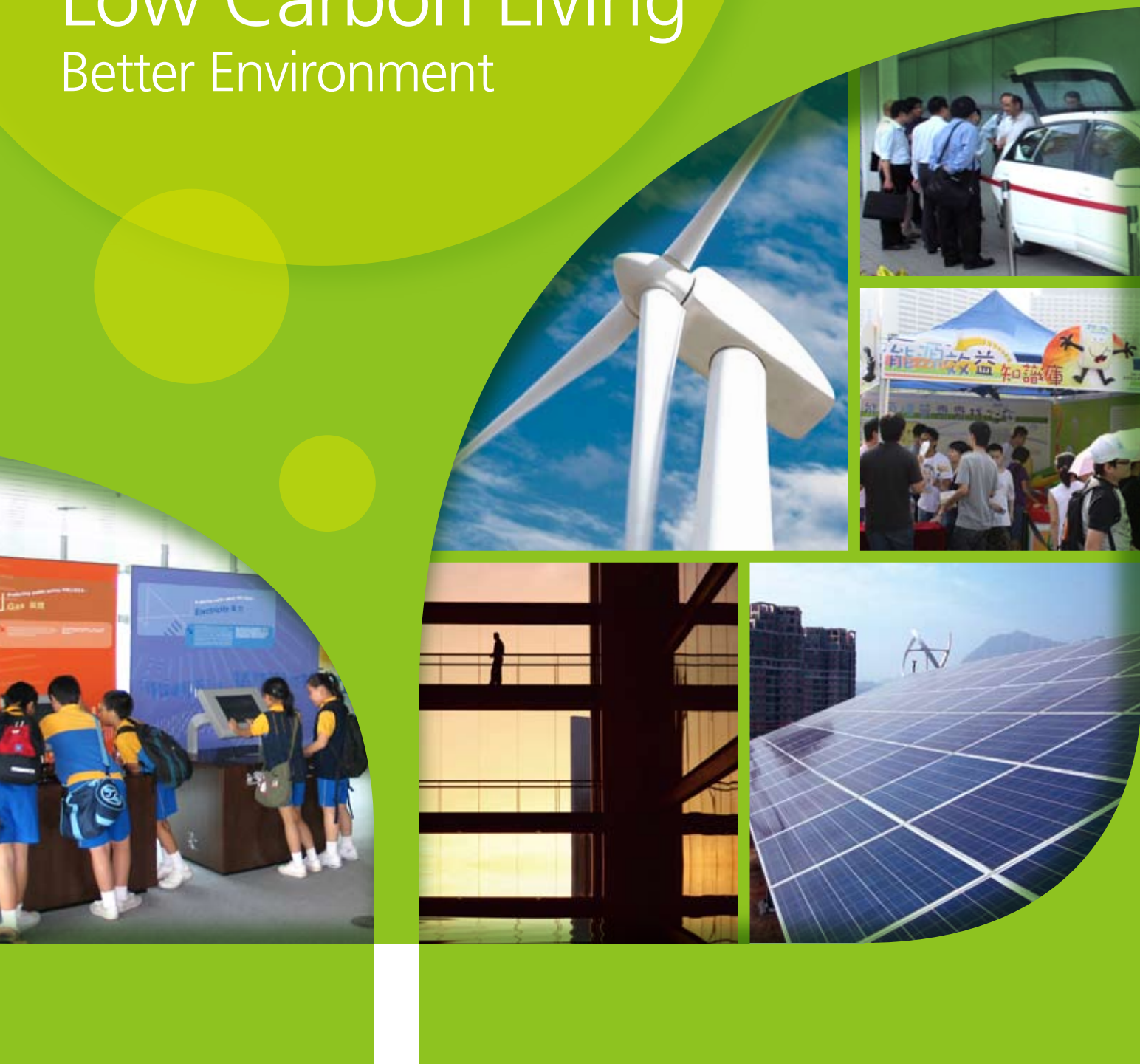


# 2009/10

SOCIAL AND ENVIRONMENTAL REPORT

## Low Carbon Living Better Environment





## TABLE OF CONTENTS

01	About this Report
03	About EMSD <ul style="list-style-type: none"><li>• <i>Vision, Mission and Values</i></li><li>• <i>Organisational Profile</i></li><li>• <i>Organisational Structure</i></li><li>• <i>Corporate Governance</i></li><li>• <i>Stakeholder Engagement</i></li></ul>
07	Director's Message
09	Challenges and Opportunities
11	Highlights and Way Forward
12	Environmental Performance
21	Social Performance
33	Economic Performance
36	Awards and Recognition
40	GRI Indicator Index
41	Summary of Statistics
42	Independent Verification Statement
43	Feedback Form

## About EMSD

### Vision, Mission and Values

#### REGULATORY SERVICES

##### VISION

To be the government agency that makes Hong Kong a top-ranking city in E&M safety and in the utilisation of energy.

##### MISSION

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

#### TRADING SERVICES

##### VISION

To improve the quality of life for our community through continuous enhancement of our electrical and mechanical engineering services.

##### MISSION

- Customer  
Providing quality engineering solutions to satisfy our customers' needs.
- Staff  
Developing a competent workforce and maintaining a harmonious environment.
- Organisation  
Keeping pace with technology development and process improvement for service enhancement.

##### VALUES

Integrity  
Service excellence  
Caring  
Customer focus  
Commitment

## Organisational Profile

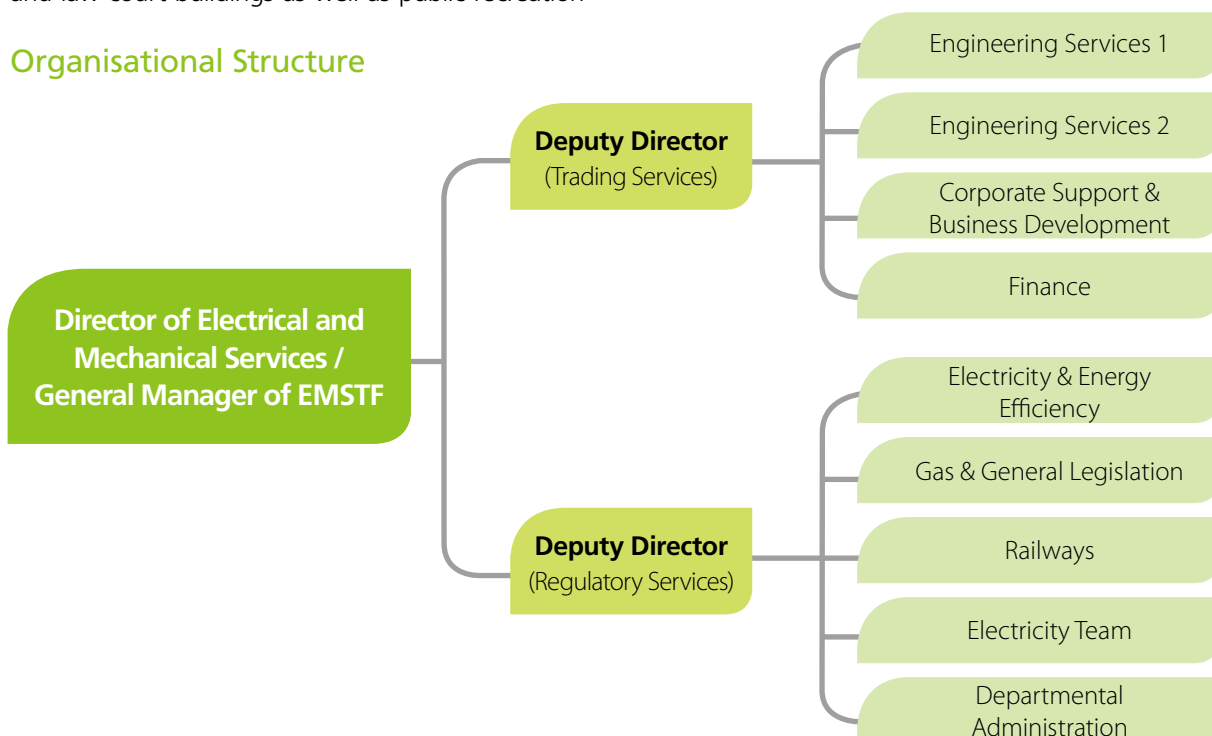
The Electrical and Mechanical Services Department (EMSD) plays a dual role. Its Trading Services, known as the Electrical and Mechanical Services Trading Fund (EMSTF), delivers electrical, mechanical, electronic engineering and building services to government departments and public institutions in Hong Kong. At the same time, its Regulatory Services (RS) implements a regulatory framework to ensure the safety of the public in electrical, mechanical and gas engineering areas, railway safety, as well as energy efficiency, via enforcement of safety and energy efficiency ordinances, and public education.

In serving our customers, the EMSTF provides one-stop value-added engineering and maintenance services to ensure that the many systems that keep Hong Kong up and running continue to do so effectively and efficiently. We serve the airport, hospitals, schools, security forces, transport and highways, port and harbour, government offices and law court buildings as well as public recreation

and leisure facilities, areas that make up the very fabric of life in Hong Kong.

To ensure E&M safety for the community, the RS issues Guidelines and Codes of Practice and administers various safety ordinances on the safe use of gas, electricity, lifts and escalators, railways, tramways, peak tram and amusement rides, among others. At the same time, we are actively involved in promoting energy efficiency and the protection of the environment through services and activities both for our customers and the community, as well as administering Hong Kong's first energy efficiency ordinance. We also give extensive professional and technical support to the Government's environmental initiatives in the form of various voluntary and mandatory energy efficiency schemes, studies on renewable energy sources in Hong Kong, compilation of energy consumption data, introduction of eco-friendly vehicles, and preparation of energy efficiency related legislation.

## Organisational Structure



## Corporate Governance

EMSD is a government department of the Hong Kong Special Administrative Region (HKSAR) with a clearly defined organisational structure. The structure for corporate governance is depicted in the figure below.

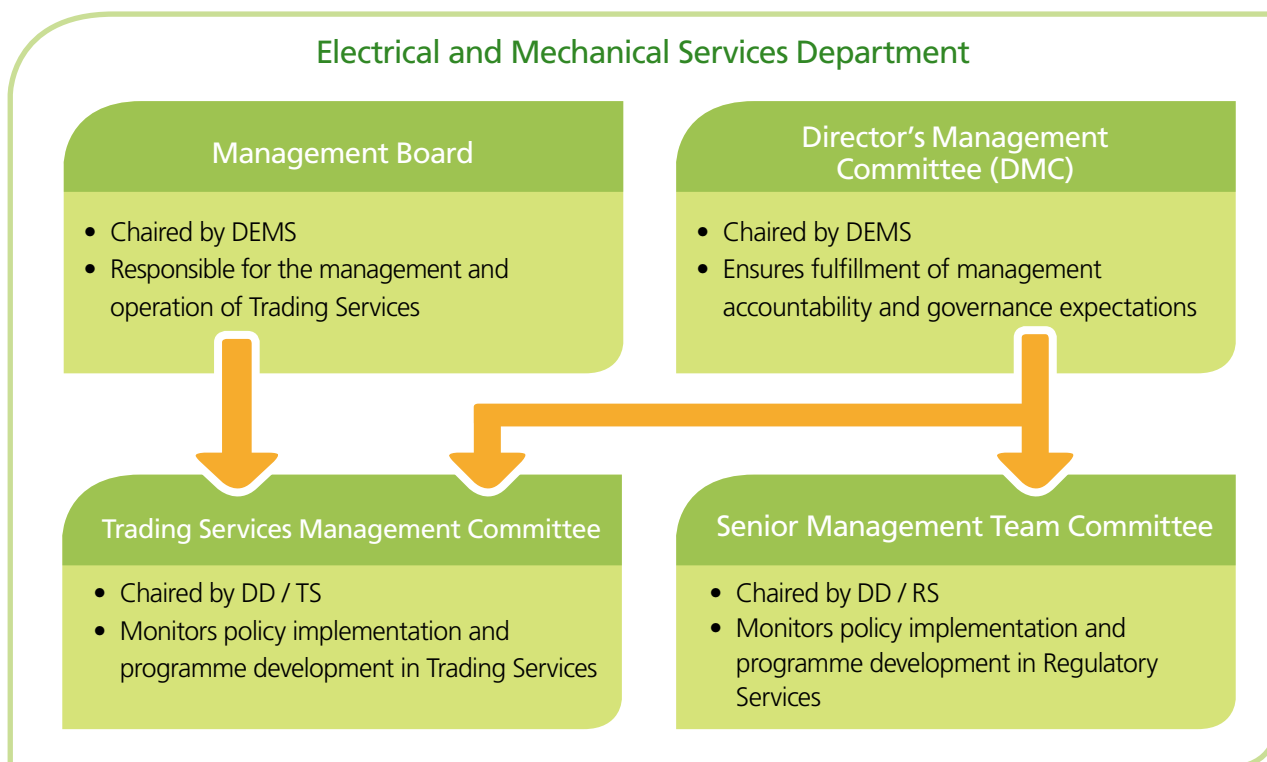
Various legislation, policies, circulars and instructions are in place to govern our organisational practices. The following are of major importance to the operation of EMSTF business and activities:

- Public Finance Ordinance
- Trading Funds Ordinance
- EMSTF Framework Agreement
- Finance and Accounting Rules

For the Regulatory Services, its operation is governed by the following:

- Public Finance Ordinance
- Finance and Accounting Rules
- Relevant legislations governing EMSD's regulatory and law enforcement work in electrical, gas, mechanical and railway safety as well as energy efficiency

In addition to the relevant policy bureaux to which EMSD is accountable, our operations are also subject to independent monitoring by the Legislative Council (LegCo), the Ombudsman and the Director of Audit.



## Stakeholder Engagement

As a government agency, our stakeholder groups include customers, policy bureaux, staff, regulated trades, industry and business organisations, suppliers and contractors, professional and trade associations and the general public.

Given the varied nature of our stakeholders, we have developed different communication programmes to cater for their different needs. Our communication channels include annual reports, websites, publications such as E&M Safety Newsletter, Electricity News, Gas Safety Bulletin,

EnergyWits, VoiceLink and GroupVoice, customer liaison groups, staff consultative committees, staff newsletter, regular consultations with trade associations and professional institutions, and ongoing electrical and mechanical safety and energy efficiency publicity, promotion and community outreach programmes.

Furthermore, our senior managers are also personally involved in supporting and encouraging colleagues to join the Council and various Boards and Committees of the Hong Kong Institution of Engineers, and participating in international engineering organisations, as part of the effort to upkeep the high standards of the engineering profession in Hong Kong.

## Director's Message

We believe that to build and sustain a low carbon economy and way of life in Hong Kong, every member of the public will have to be engaged.



As we embark on the second decade of reporting our work serving Hong Kong towards building a sustainable economy, I hope you share our excitement in the many goals and milestones we have accomplished in the year. This Social and Environmental Report provides an overview of EMSD's environmental, social and economic performance from 1 April 2009 to 31 March 2010.

Low carbon is becoming the way we do business. EMSD is proud to be associated with the Government's initiative and direction to build a low carbon economy for Hong Kong, through our quality E&M services to customers, as well as the regulatory role we play to enforce ground-breaking legislations to support this vision. Obviously, as responsible corporate citizens, we also contribute to this goal through our many internal initiatives such as electricity and paper consumption reduction, green procurement and a more emissions-conscious mindset in going about our daily activities.

After years of hard work and preparation, we are glad to see the full implementation of the Mandatory Energy Efficiency Labelling Scheme phase one in November 2009. Phase two was also launched in March 2010, and we shall continue to work on expanding the scheme to cover more energy-consuming appliances. We are also delighted that The Buildings Energy Efficiency Bill for mandatory implementation of the Building Energy Codes was introduced to the Legislative Council in December 2009. At the time of writing in November 2010, the vetting process has been completed and enactment is expected soon. EMSD is committed, and ready to give our full support to the enforcement of this legislation, yet another milestone in the Government's roadmap to higher energy efficiency, and a low carbon economy.

Higher awareness in sustainable development has resulted in both opportunities and challenges to EMSD. Opportunities for EMSTF's carbon-cum-energy audit services, energy management business, as well as energy saving and renewable energy project services have been on the rise. At the same time, community expectations for more regulatory control over sustainability issues such as higher energy efficiency and wider use of renewable energy will pose new demands on our resources and organisational agility.

We believe that to build and sustain a low carbon economy and way of life in Hong Kong, every member of the public will have to be engaged. EMSD is proud to present and be associated with a diversity of community outreach and education programmes to provide opportunities for the public and trade practitioners to see the benefits and best practices in energy efficiency and conservation.

Supporting the transformation of Hong Kong into a low carbon economy has been our priority in the past year. This will continue to be one of our objectives on the journey towards service excellence, and in improving the regulatory vigilance in utilisation of energy.

This report describes our efforts towards this objective. It is also a communication platform between EMSD and its stakeholders. We look forward to hearing your valuable feedback. Finally, I wish to take this opportunity to thank our stakeholders for their support, and for making this report possible.



**Stephen H C Chan**

*Director of Electrical and Mechanical Services*

## Challenges and Opportunities

### Impact of Sustainability on the Organisation

As an international city, Hong Kong must maintain its economic growth in a fast-paced knowledge economy while at the same time improve the quality of life for its citizens. From a sustainability perspective, this means that organisations such as EMSD must find the most eco-friendly way to conduct its daily activities so that resources are used in an optimal manner with the least possible waste and pollution. Equally important is that the safety, health and general well-being of its employees, customers and other stakeholders must be well taken care of. At the same time, we must also identify and make full use of business opportunities arising from sustainable development.

#### Impact on Trading Services

A potential threat to our business viability is the likely fluctuation in revenue as a result of continued instability in the current global economic climate, as well as the threat of inflation that could add to our operating cost and erode our margins. In response, we have continued to take prudent cost control measures, stepped up productivity by various means such as increasing staff training, streamlining business processes, better use of information technology, and secured more long-term agreements with client departments to add stability to our business.

As to opportunities, an obvious area is client departments' increasing demand for our energy management, carbon audit and energy saving and renewable energy project services. Further energy saving opportunities will also come from the Government's commitment to its Green Building

Framework which aims to reduce electricity consumption in all bureaux and departments by a total of 5% from 2009/10 to 2013/14 against the base year of 2007/08. The Chief Executive has also reiterated in his 2010/11 Policy Address that he expects the carbon intensity in Hong Kong to be reduced by 50-60% by 2020, compared with the 2005 level. Overall, the energy management business is likely to grow in the long run as client departments become increasingly aware of both the economic and environmental benefits of energy efficiency and conservation.

#### Impact on Regulatory Services

The impact of sustainable development on our Regulatory Services is no less significant. Both international bodies and local policy makers call for priority attention to sustainability issues such as emissions control and energy intensity reduction. As a member of the Asia-Pacific Economic Co-operation (APEC), Hong Kong fully supports the APEC Leaders' Declaration on Climate Change, Energy Security and Clean Development adopted in Sydney in 2007, and will seek to reduce at least 25% of energy intensity by 2030, with 2005 as the base year.

The strain imposed on natural resources by economic growth, human population and climate change has prompted many leaders around the world to focus on ways to create more sustainable models for economic growth and development, which could lead to more stringent emission control regulations. The challenge for our Regulatory Services is to keep abreast of current international developments and help the Government create an energy efficiency regulatory framework that is conducive to the transformation of Hong Kong into a low carbon economy.

As more energy efficiency legislation are enacted and implemented, our enforcement work will also grow. At the same time, our trades and citizens will need more information and awareness building with regard to energy efficiency and conservation as well as renewable energy, further boosting our public education work. We shall also step up our internal capabilities to perform these duties more effectively and, at the same time, introduce where appropriate state-of-the-art energy efficiency technologies into Hong Kong.

## Organisation's Impact on Sustainability

### Impact of Trading Services

EMSD makes an impact on sustainability in several ways. Our Trading Services provides E&M engineering services to government departments and public bodies in Hong Kong, a process which inevitably impacts upon the environment through our office operations and engineering related works.

To mitigate the impact, we have adopted an Integrated Management System that combines quality, environmental, occupational health and safety management systems as an overall process framework and to identify non-compliances for improvement. At the same time, we also make a positive impact through providing professional engineering services in energy efficiency and renewable energy projects to client departments that directly reduce energy consumption and emissions. We give professional advice and support to clients in the procurement of eco-friendly vehicles and provide on-going maintenance service. We also give technical support to the Environment Bureau

to promote the Buildings Energy Efficiency Funding Schemes and vet applications from private buildings owners for partial subsidies to conduct energy-cum-carbon audits and energy efficiency projects.

### Impact of Regulatory Services

Our Regulatory Services makes a positive impact on sustainability via various schemes, promotional campaigns and awards to promote energy efficiency and the wider use of renewable energy, as well as the enforcement of energy efficiency related legislation. Notable examples are the voluntary and mandatory Energy Efficiency Labelling Schemes for electrical appliances, the Fresh Water Cooling Towers Scheme for Air-conditioning Systems and the Energy Efficiency Registration Scheme for Buildings, and preparations for the enactment of the Buildings Energy Efficiency Ordinance. Extensive publicity and education programmes such as TV and radio promotion, online activities and websites, publications, events, as well as talks and seminars are held for trades and the general public throughout the year to build awareness of a low carbon economy and lifestyle.

## Highlights and Way Forward

### Environmental

#### Highlights

1. Reduced annual electricity consumption at EMSD venues by 2.8% compared to 2008/2009
2. Reduced annual paper consumption at EMSD venues by 3.8% compared to 2008/2009
3. Implemented initial phase of the Mandatory Energy Efficiency Labelling Scheme in full since 9 November 2009
4. Completed 159 energy efficiency projects for customers with expected annual energy savings of almost 15 million kWh after completion
5. Drew up Carbon Audit Guidelines in 2008 jointly with the Environmental Protection Department, with an updated edition issued in February 2010
6. Introduced the Buildings Energy Efficiency Bill for mandatory implementation of the Building Energy Codes to the Legislative Council (LegCo) in December 2009, with relevant vetting process by LegCo commenced in January 2010
7. Provided technical advisory support to the \$450 million Building Energy Efficiency Funding Schemes under the Environment and Conservation Fund for energy-cum-carbon audits and energy efficiency projects for buildings
8. Assisted the Environment Bureau in the implementation of energy efficient District Cooling System at Kai Tak Development

#### Way Forward

1. Continue to reduce electricity consumption at EMSD venues by a total of 5% from 2009/10 to 2013/14
2. Commence over 60 energy saving projects for customers in 2010/11
3. Prepare for the enactment of the Buildings Energy Efficiency Ordinance for mandatory implementation of the Building Energy Codes
4. Continue to implement the District Cooling System project at Kai Tak Development

### Social

#### Highlights

1. Achieved an average of 5 annual training days per staff member
2. Organised the International Conference on Electrical and Mechanical Safety and Energy Efficiency
3. Increased staff awareness and reduced the number of in-house accidents by 25% in 2009/10 compared with 2008/09

#### Way Forward

1. Continue to accomplish at least 4.5 training days per staff member per year on average
2. Strive to attain a target score of 6.4, on a scale of 10, in the Staff Satisfaction Survey to be held in November 2011

### Economic

#### Highlights

1. Achieved Return on Revenue (ROR) at 11.8% and Rate of Return on Fixed Assets at 49.1%
2. Supported the economy by letting out contracts totaling more than \$1.88 billion for the provision of goods and services

#### Way Forward

1. Extend the ISO 27001 Certification on Information Security Management System to include the new Data Centre at Siu Ho Wan to enhance our ICT business
2. Prepare for new business opportunities arising from the increasing demand for our energy management, carbon audit and energy saving and renewable energy project services



# Environmental Performance

Creating sustainable development solutions

## Environmental Performance

### Environmental Responsibilities

One of the underlying principles of EMSD's operations is to enhance the quality of life of our community. However, our operations may also impact the environment in the course of rendering services to customers and the public.

Our first priority is therefore to avoid creating environmental pollution, or reduce the impact if pollution is inevitable. We strive to conserve resources, minimise the generation of waste and prevent pollution in our business operation process. To achieve this goal, we have taken all reasonable measures to comply with green legislations as the baseline of our operation. We also encourage our contractors, suppliers and their staff to be equally friendly to the environment.

### Environmental Management System

Our environmental performance is mainly governed by our Environmental Management System (EMS) which has evolved over the years. First implemented in the mid-1990s, the EMS was a decentralised management framework which required each division to ensure that its operations comply with internationally recognised standards and legislative requirements in Hong Kong.

In 2000, we took a step forward and became the first government agency to attain the ISO14001 Corporate Certificate. In 2002, we streamlined our various management systems in quality, environment and occupational health and safety, and combined them into an Integrated Management System (IMS). In June 2006, the EMS was also upgraded to ISO14001:2004 version. We review the IMS regularly to ensure that it conforms to the ISO14001 standards. In 2009/10, all OHSAS 18001 certificates under EMSTF were successfully

updated to the 2007 version and individual divisions have also been upgrading their ISO 9001 system to the 2008 version.

### Energy Efficiency Conservation Initiatives

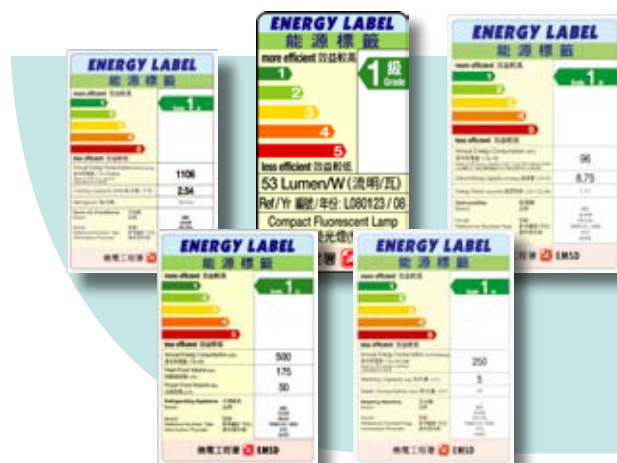
Ever since the 1990s, EMSD has been playing a pioneering role to promote energy efficiency and encourage wider use of renewable energy in Hong Kong.

The Asia-Pacific Economic Co-operation (APEC) Leaders' Declaration on Climate Change, Energy Security and Clean Development was announced at the APEC Leaders' Meeting held in Sydney in September 2007. It calls upon APEC economies to achieve a reduction in energy intensity of at least 25% by 2030 (with 2005 as the base year). As a member economy of the APEC, Hong Kong has adopted the declaration and has been doing its best to meet the reduction target in energy intensity.

Highlighted below are key developments in 2009/10 to support Government's policy to step up energy efficiency and conservation.

### Mandatory Energy Efficiency Labelling Scheme

The initial phase of the Mandatory Energy Efficiency Labelling Scheme has been in full implementation since 9 November 2009. All three



product types under the initial phase, namely room air conditioners, refrigerating appliances and compact fluorescent lamps, are now required to bear energy labels to inform consumers of their energy efficiency performance. As at the end of March 2010, around 2,900 product models have been listed under the Scheme. The second phase of the Scheme extends the coverage to two more electrical appliances, namely washing machines and dehumidifiers, and commenced on 19 March 2010 with an 18-month grace period for the trade to make necessary preparation.

### Mandatory Building Energy Codes

Buildings account for almost 90% of Hong Kong's total electricity consumption. Therefore, mandatory implementation of the Building Energy Code (BEC) was proposed in late 2007 with an aim to promote energy efficiency in buildings. The majority of views received during the public consultation conducted in early 2008 supported this proposal. With the efforts of all parties, the Government introduced the Buildings Energy Efficiency Bill for mandatory implementation of the BEC to LegCo in December 2009 for commencement of the vetting procedures. It is anticipated that the new legislation will be enacted in late 2010/11 and put in full implementation in mid 2012 after a 18-month grace period.



### Building Energy Efficiency Funding Schemes

Funding schemes of a total sum of \$450 million under the Environment and Conservation Fund was arranged in April 2009 to subsidise energy-cum-carbon audits and energy efficiency projects for private buildings. EMSD has been playing a supporting role in establishing the schemes, and EMSTF provides technical support services in the processing of applications received by the funding schemes.



### District Cooling System

A District Cooling System (DCS) project will be implemented at the Kai Tak Development. In general, DCS will consume up to 35% less electricity than traditional air-cooled air-conditioning systems. It is estimated that upon completion of the Kai Tak Development, the DCS will save up to 85 million kWh of electricity annually, representing a reduction of 59,500 tonnes of carbon dioxide emission per annum.

### Green Procurement

Green procurement is one of the key policies to encourage waste reduction, recovery and recycling. The Government amended its procurement regulations as early as 2000 to require all bureaux and departments to take into account environmental considerations when procuring goods and services. In this regard, we have been doing our part by incorporating green requirements, particularly the inclusion of a trade-in option of used equipment as far as practicable, into our procuring policy for products and services, and in accordance with the Environmental Protection Department's "green product specifications".

At the same time, we also supported our clients by helping them to implement energy efficiency and renewable energy projects, conduct carbon and energy audit, as well as procure environmental friendly vehicles such as hybrid vehicles and electric scooters.

Furthermore, a Working Group on Green Procurement in E&M Works was set up in March 2010 with an objective to oversee the identification of green materials and product, systems and construction methodologies in E&M works. The Working Group will also examine the implications of new green technologies with a view to promoting them in E&M works, so as to benefit our clients and the public.

We also strongly support the Government's green initiatives in developing specifications for green procurement. A comprehensive reference

library for existing guidelines, codes of practice, standards relating to green procurement has been set up at EMSD's Intranet for staff reference and information sharing.

### Green Projects for Clients

EMSD's Trading Services have been assisting clients in identifying energy saving opportunities and implementing green projects to enhance energy efficiency and the use of renewable energy.



### Cooperation with Water Supplies Department on Water Saving Project

EMSTF continues to promote environmental protection via assisting clients in the implementation of environmental and energy saving projects. The Project Division was recently commissioned by the Water Supplies Department to upgrade water saving facilities at government buildings and schools. Project works commenced in June 2010, and are scheduled to be completed in 2012.

## Central/On-site Meal Portioning for Schools

The Green Lunch initiative received enthusiastic response from schools in Hong Kong. Since the project launch in December 2009, more than 200 schools have applied to the Environment and Conservation Fund to upgrade school facilities for a central portioning approach to distribute lunch in order to reduce food waste and the use of disposable lunch boxes. In view of the large number of applications, the Environment and Conservation Fund has increased the funding from \$50M to \$150M in March 2010 for the completion of works for about 120 schools.

Up to end March 2010, 22 of these applications have been approved. In entering into a Service level Agreement with the Environment Protection Department, EMSTF provides full project management services including advisory, feasibility study, project design, procurement, contractor management and site work monitoring for schools to implement on-site meal portioning. The EMSTF team had participated in briefings to school administration about details of the project, and conducted on-site assessment for more than 170 schools. The first Green Lunch school project at Sun Fong Chung College in Tai Po was completed after the Easter holidays in 2010 and another 35 schools will see the works completed by the 2010 summer break.





### Application of Renewable Energy in Cultural and Recreational Venues

EMSTF has installed lighting facilities using renewable energy in five cultural and recreation venues namely Hong Kong Park, Tsim Sha Tsui East Promenade, Sha Tin Park, Kowloon Park and Tuen Mun Park, in order to reduce reliance on traditional fossil fuels and to demonstrate to the public the benefits of renewable energy. The grid-connected building-integrated photovoltaic systems at the Hong Kong Park and Tsim Sha Tsui Promenade, for example, can generate electricity with a maximum output of 2.4 kW and 2.2 kW respectively for consumption in various venue facilities, and can offset a significant amount of carbon emission every year.



## International Exchange

As a pioneer in promoting energy efficiency in Hong Kong, we have been active in international exchange work so as to keep ourselves abreast of the latest trends and developments worldwide. During 2009/10, EMSD representatives attended a variety of regional and international conferences and meetings, the key ones as follows:

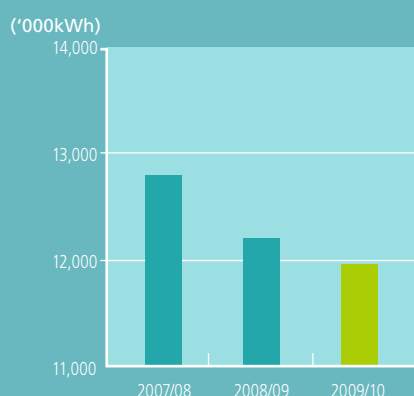
- The 37th Meeting of APEC Energy Working Group and Associated Meetings, April 2009, Chile
- The 33rd meeting of the APEC Expert Group on Energy Efficiency and Conservation and APEC Workshop on Sustainable Energy Development in the Built Environment, April 2009, Singapore
- The 2009 Macao International Environmental Cooperation Forum and exhibition (2009 MIECF), April 2009, Macau
- The China Electric Vehicle Tour 2009, September 2009, China
- The APEC Workshop on the Development of LED Lighting Standards and Testing Technology, October 2009, Taiwan
- The 4th International District Cooling Conference, October 2009, Dubai
- The 38th Meeting of APEC EWG Associated Meetings, November 2009, Indonesia
- The 8th Workshop on Energy Statistics related with the Energy Efficiency Indicators in APEC Region, November 2009, Malaysia
- The 21st Meeting of the APEC Expert Group on Energy Data & Analysis and the 35th Meeting of the APEC Expert Group on Energy Efficiency & Conservation, February 2010, New Zealand
- The 39th Meeting of APEC EWG and associated meetings (EWG39), March 2010, Japan
- The Asia Pacific Energy Research Centre (APERC) Annual Conference 2010, March 2010, Japan

## Conservation of Operational Resources

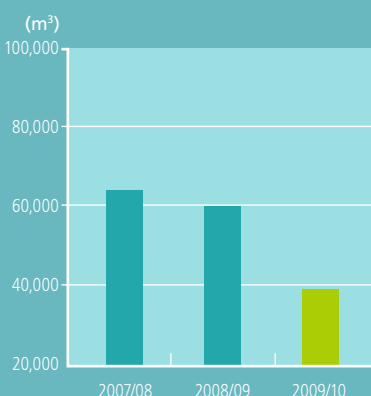
### Public Utilities

Electricity, water and towngas consumption at EMSD is shown in the graphs below. The consumption of electricity and water has continued to decline in recent years. Towngas consumption saw a small jump in 2009/10 as a result of renovation works but control measures have since been put in place.

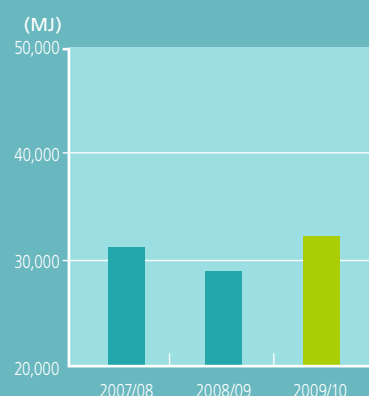
Electricity Consumption



Water Consumption



Towngas Consumption



Major venues include our Kowloon Bay Headquarters (including Corporate Data Centre), Caroline Hill workshop, Fan Garden VSS Depot, Siu Ho Wan Vehicle Depot, and the EMSD workshop in the Air Mail Centre at Hong Kong International Airport.

Water is mainly consumed for air-conditioning, gardening, drinking and cleaning. Consumption data are available for Caroline Hill workshop and Kowloon Bay headquarters.

Caroline Hill workshop is the major venue relying on towngas for water heating. Consumption increased in 2009/10 as construction workers consumed hot water for showers during renovation works, but control measures have since been put in place.

## Materials

### Materials Used in Offices

Paper and toner cartridges are the main materials used in office. We make every effort to reduce our paper consumption. In 2009/10, paper consumption dropped by 3.8%. Since 2001, we have adopted the extensive use of environment-friendly recycled paper made from recycled fibre.

In 2009/10, 94% of our total paper consumed was recycled paper. Use of virgin paper was limited to external documents only and is avoided as far as practicable. We purchased some 3,270 toner cartridges in 2009/10 and have followed government initiatives to recycle used toner cartridges since 2005/06.

## Materials Used in Workshops

We recognise that materials, parts and products used in our everyday operations impact the environment in different ways through their production, use and ultimate disposal. EMSD endeavours as much as possible to reduce the consumption of materials, and to re-condition and re-use them whenever practical in order to sustain natural resources in the long run.

## Emissions, Effluents and Wastes

### Reducing and Recycling of Waste

Our waste management strategy is to minimise unavoidable waste generation and maximise material recycling. Wastes are primarily generated in two streams – from our offices and from our workshops. Major wastes from offices include paper and toner cartridges, while rechargeable batteries, metal scraps, vehicle tyres and fluorescent tubes are major wastes from workshops.

### Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions are widely acknowledged as a cause of global warming and climate change, and reducing emissions such as CO<sub>2</sub> is one of our biggest challenges. EMSD's GHG emissions are mainly attributed to the consumption of electricity in our offices and workshops, and transport. In 2009/10, direct emissions from our transport activities amounted to about 1,640 tonnes of CO<sub>2</sub>, and our electricity consumption gave rise to about 8,374 tonnes of CO<sub>2</sub>.

## Transport

The use of transport in EMSD operations consumes non-renewable fossil fuels and generates GHG emissions. As of 31 March 2010, we have a fleet of 247 vehicles including lorries, vans, saloon cars and motorcycles to deliver our services, and at the same time maintain 5,707 government vehicles for our client departments. We have to ensure that emissions from such activities are reduced to a minimum by good housekeeping, proper vehicle maintenance, reduced use of transport or switching to hybrid or electric vehicles. We now have five hybrid vehicles, which consume 40% less fuel than conventional cars of similar size.

For details of our performance in other resources consumption, as well as emissions, effluents and wastes, please refer to the section "Summary of Statistics"



### Photovoltaic System at EMSD Headquarters

The photovoltaic system is the signature feature of natural energy generation in EMSD Headquarters, with a maximum output of 350kW. Since its inception in 2005, it has been generating clean renewable energy for use at our headquarters. The total output of the system up to end March 2010 is 1.24 million kWh. The system has helped reduce GHG emissions equivalent to 868 tonnes of CO<sub>2</sub>.



# Social Performance

Being a good corporate citizen

## Social Performance

### Social Responsibilities

Our responsibility is not limited to maintaining a green and healthy environment for our client departments and the public. As a caring and responsible corporate citizen, we also have the obligation to provide a safe and healthy environment for our employees and other parties working for us, and to comply with the relevant laws and regulations. As a government department, we operate under the HKSAR Government policy framework, including labour and occupational safety and health issues. Governed by the Civil Service Bureau's codes of conduct, we also provide equal employment opportunities in accordance with the law. We also encourage our staff to actively participate in various community activities.

### Staff Employment and Development

#### Employment

At the end of 2009/10, we have a total of 5,295 employees, about 68% of whom are employed on permanent terms. As a commitment to uphold the equal opportunity employment policy, we currently have 229 employees with minor disabilities, representing about 4% of our total workforce.

In terms of salary payment, we adhere strictly to government policies on timely payment of staff salaries and maintain payment records as required.

#### Learning and Development

At EMSD, we recognise the need to continually enhance the capabilities and competitive strengths of our staff in order to build a capable and progressive workforce. As such, we fully support our

employees in pursuing learning and development opportunities that will eventually enhance their contribution to the organisation. We are committed to promoting a continuous learning environment to develop a motivated and competent workforce through effective management and continuous development of our human resources. Our Human Resources Management Committee, chaired by the Director of Electrical and Mechanical Services and comprising Heads of Departmental Grades as well as senior managers of General and Common Grades, meets regularly to review our training programmes and initiatives.

#### Graduate Training Scheme

Since its inception in the 1960s, our Engineering Graduate Training Programme has attracted more than 680 graduate participants. The programme has long been considered one of the best on-the-job training schemes in the engineering profession in Hong Kong and has contributed to the provision of trained engineers to meet the needs of the local profession. In 2009/10, we recruited 21 engineering graduates specialising in electrical, mechanical, electronics, building services, information technology and biomedical engineering.

#### Apprentice Training Scheme

Another key training programme is our Technician and Craft Apprentice Training Scheme which aims to provide systematic training of good standard to satisfy the present and future needs of EMSD as well as the community in a wide variety of occupations. The long-standing scheme has been running for over 50 years, successfully trained more than 4,500 apprentices for the profession. In 2009/10, we recruited 44 craft apprentices and

40 technician apprentices. Besides on-the-job training, we have sponsored the apprentices to attend craft certificate courses and higher diploma courses in the Institute of Vocational Education.

### Training Targets

In 2009/10, we achieved 5 training days per staff member per year on average, exceeding the 4.5 days target set for the year. We continue to encourage and provide training relevant to enhancing our services and developing new business, and to facilitate employees' personal growth.

## A Healthy and Safe Working Environment

### Occupational Health and Safety

At EMSD, we attach great importance to Occupational Health and Safety (OH&S). Our Safety and Health Policy and infrastructure help ensure that a high standard of OH&S in the workplace is achieved and maintained throughout the department.

Our Departmental Occupational Safety and Health Committee, which comprises management and staff representatives from branches/divisions as well as departmental consultative committees, meets on a regular basis to review our health and safety performance in all areas with a view to identifying areas for improvement. We have continued to conduct training and refresher courses, and disseminate information through various channels.

In 2009/10, the accident rate is 4.38 per 1,000 employees, a reduction of 25% compared with 2008/09. To enhance safety awareness and nurture a safety culture, we have organised a variety of OH&S

activities including safety visits and sharing sessions. For our safety poster and slogan design competition, winning posters have been posted in work places while winning slogans have been printed on note pads distributed to staff for daily use. We also have arranged different OH&S competitions on themes such as Zero Accident, Safety Improvement, Break the Safety Record, "We See, We Clear", "Near-Miss Incident" Reporting, Best Safety Enhancement Project and Good Office Housekeeping. Awards were given to teams and divisions in recognition of their outstanding safety performance.

### Sick Leave

In 2009/10, a total of 18,823.5 working days were lost due to sick leave. This is equivalent to around 3.55 days per employee.

## Staff Relations

### Staff Satisfaction Survey

Independent research specialists are appointed to conduct staff satisfaction surveys on a regular basis. In the latest 2009/10 survey, every employee at senior engineer rank and below was provided with an opportunity to express his/her views through a survey questionnaire. The average overall staff satisfaction rating is 6.3 (on a scale of 10). Overall satisfaction levels in the past years have shown a steady trend. The next survey will be conducted in November 2011.

### Staff Consultation Channels

There are four departmental consultative committees and five divisional consultative committees to facilitate communication between particular groups of staff and management within

EMSD. Staff members are also free to join the various established staff unions as well as the general government unions. There are 11 staff unions and regular meetings are held with the unions to discuss issues of staff concern.

## Contractors and Suppliers

### Contractor and Supplier Management

Our contractors, consultants and suppliers are our important partners in the provision of reliable and quality services to our clients and the community. We invite these working partners to tender for public works contracts from time to time. In selecting contractors, we adhere to the basic principles of openness and fairness, and adopt competitive tendering wherever applicable in compliance with government guidelines. We have established and maintained close communication with our contractors, consultants and suppliers to ensure that critical information, such as customer concerns, is clearly conveyed to them and relevant issues are addressed properly and in a timely manner.

To monitor the work of contractors, we conduct regular meetings and audits to keep track of project progress as well as to minimise any inconvenience or disturbance caused to the neighbourhoods where the works take place. Post-project reviews are carried out upon project completion to further assess contractor performance.

To enhance our staff awareness of and sensitivity to integrity and conduct issues, integrity management workshops are arranged for staff who have official dealings or contacts with consultants/contractors and their supervisors.

## Customers

Achieving customer satisfaction is a priority in our day-to-day business, particularly for our Trading Services. In this regard, we commission an independent research consultant to conduct Customer Satisfaction Survey once every two years to gauge customer satisfaction level, and would act upon the findings, aiming to further enhance customer satisfaction. The most recent survey would be completed in June 2010.

As to Regulatory Services, our Customer Liaison Group meets regularly with representatives from the general public to exchange views and obtain face-to-face feedback on our regulatory and safety promotion activities, and how they can be improved. Public opinion surveys to gauge public awareness of E&M safety and energy efficiency, as well as trade surveys to measure the trades' views of RS services, are also conducted regularly to identify improvement areas for Regulatory Services.

### Seminars and Forums for Government Departments and EMSTF Clients

During the year, EMSD continued to promote the benefits and latest practices in energy efficiency and conservation to other government departments and EMSTF clients. The topics covered general best practices as well as energy saving tips for specific areas. The following are highlights in 2009/2010.

## Energy Saving Forum for Government Departments



"The Efficiency and Saving Forum for Government Departments" was held in June 2009 and attracted over 140 participants. Academia from leading universities presented the latest research findings on lighting and heat pump energy saving technologies. Another series of energy saving talks were held in July 2009 for government departments to help them comply with a directive issued in 2009 which required government buildings to reduce electricity and energy consumption by 5% from 2009/10 to 2013/14. Representatives from the electricity and gas utilities also spoke at the seminar on technical details.

## Electric Vehicles Seminar

The Electric Vehicles Seminar was held for over 150 clients in May 2009 to introduce the latest electric car technologies, and to promote EMSTF services in the areas of vehicle fleet management system, on-line route searching system as well as other services to support the Government's promotion of electric vehicles in Hong Kong.



## Green Building and Carbon Audit Seminar

The Green Building and Carbon Audit Seminar for EMSTF clients, held in November 2009, received enthusiastic response with more than 400 customers attending. Speakers included experts from the Environment Bureau, the Energy Institute (Hong Kong Branch) and a leading consultancy. The conference shared the latest trends and practices in the areas of building energy efficiency ordinances in Hong Kong, overseas energy audit experience, carbon management and the impact of carbon emission on the environment. EMSD professionals also spoke on the supporting services it rendered to the Building Energy Efficiency Funding Schemes.



## Community

Our staff have long been active in serving the community, both in their work duties to reach out to the public to disseminate E&M safety and energy efficiency messages, and in voluntary service beyond their work duties in order to give back to the community. Our Staff Voluntary Service Team, for example, has served the community in numerous initiatives for more than ten years. Many of our professional engineers also play active roles in local and international professional engineering institutes to contribute to the growth of the profession and help maintain its high standards.



### Energy Saving in Perspective

The public education seminar "Energy Saving in Perspective" was held at the Hong Kong Science Museum in July 2009. It featured experts from our Energy Efficiency Office and the Hong Kong School of Motoring who spoke on the different perspectives of energy saving at home and in the office, high performance lighting systems, renewable energy technologies and installations, fuel-saving driving practices and vehicle fleet management, as well as energy saving in the catering industry.

## Public Education Activities

We work closely with other government departments and the community to promote E&M safety and energy efficiency to the public, an important aspect of the work of our Regulatory Services. Public education is conducted through a variety of channels, including mass media and the Internet, publications, promotional and advertising campaigns, posters and mail-outs, carnivals, roadshows, drama performances, game contests, quizzes, and talks and seminars tailored to the needs of specific segments of the public. The following are highlights in 2009/10.

### Electricity Regulatory Seminar

EMSD with the support of the Hong Kong and Kowloon Electrical Engineering and Appliances Trade Workers Union and the Hong Kong Electrical Contractors' Association, organised in November 2009 the Annual Technical Seminar on electricity regulatory matters. The seminar featured talks by professional engineers and experts on enhancing regulatory services for the electrical trade, selection of earth fault protection devices and the Mandatory Energy Efficiency Labelling Scheme.

This year's seminar also featured the awards presentation ceremony of the first Registered Electrical Workers Safety Competition organised by EMSD with an aim to raise awareness among trade practitioners the importance of work safety and regulatory compliance.





### Environmental-friendly Driving Seminar

Invited by the Hong Kong Productivity Council, experts from the Energy Efficiency Office attended the Council's "Environmental-friendly Driving Seminar" to share their expertise in enhancing energy efficiency for the transportation industry, including eco-friendly vehicles, new automotive eco-technology, fuel saving, driving techniques, practising fuel saving driving in commercial vehicles, as well as good maintenance practices to save energy, reduce maintenance cost and minimise the impact on the environment.



### Technical Forum on Fresh Water Cooling Towers Scheme

The annual technical forum, held in October 2009, attracted over 350 trade practitioners and concerned parties, including cooling towers owners/operators, property management agents, consultants and contractors. It is EMSD's priority to promote the fresh water cooling towers scheme for energy efficient air-conditioning systems and good maintenance practices.



### The Education Path in EMSD Headquarters

Between May 2005 and March 2010, more than 800 tours with over 28,000 visitors have visited EMSD's Education Path at its headquarters building, to learn about best practices in energy efficiency and conservation and see the highlights of EMSD's regulatory functions.



## Outreach Programmes

During April 2009 to March 2010, EMSD's safety and energy efficiency ambassadors have made visits to 307 kindergartens, primary schools and elderly centres, covering more than 38,000 students and the elderly, to promote electrical safety and energy efficiency. The team has also visited 89 kindergartens and nursery schools with more than 13,700 students to promote the safe use of lifts, escalators and amusement rides for children. A total of 231 safety talks were conducted.



## Energy Innovation Project Competition for Students

EMSD supports the initiative of early education on energy conservation and efficiency. EMSD has been invited to join the judging panel of the annual Energy Saving Competition for Students, jointly organised by the Hong Kong Institution of Engineers and China Light and Power to promote energy conservation through creative thinking among young people. EMSD representatives participated in the opening ceremony cum briefing in September 2009 where previous winners shared their experiences. Shortlisted teams in this year will express their creative thoughts on energy efficiency and conservation via a diversity of media such as computer games, computer graphics and illustrations as well as videos and models.





### Job Shadow Day

In partnership with the Junior Achievement Hong Kong, EMSD organised in May 2009 the second Job Shadow Day for 14 Form 4 and Form 6 students from Ho Lap College. Fourteen EMSD professionals were assigned to serve as mentors of the students. Students spent an activity-packed day with their mentors, including a tour of the EMSD energy saving installations at its headquarters, general office duties, attending meetings and lunch with their mentors at the headquarters cafeteria. All activities were designed to give them a taste of real-life work situations, as a preparatory step for their future careers.



### Green Carnival

EMSD's senior management led the Energy Efficiency Office team to officiate at the opening ceremony of the Green Carnival 2010 organised by the Green Council in late January 2010. We also staged a game booth at the Carnival to promote energy efficiency and the Energy Efficiency Labelling Scheme.





## E&M Safety Carnival 2009

One of the most important initiatives of EMSD in raising public awareness of E&M safety and energy efficiency is its annual E&M Safety Campaign. The campaign is a joint effort by EMSD and key organisations from the electricity, gas and energy, public transportation, entertainment, housing and estate management sectors. Entering into its ninth year, the campaign continues to feature a mix of community and mass media programmes. Highlight of the campaign was the two-day outdoor E&M Safety Carnival held in Victoria Park in October 2009, which attracted more than 10,000 visitors from the community.

## Promotion of Railway Safety with MTR

Incident report analysis by EMSD and a survey on passenger safety conducted by the Chinese University of Hong Kong reveal that the majority of MTR incidents was due to lack of use of escalator handrails, and rushing through closing train doors. In May 2009, representative of EMSD's Railways Branch was invited to co-officiate at the opening ceremony of a month-long joint safety campaign to promote safe behaviour in the MTR. Creative flyers were distributed and mystery ambassadors were deployed during peak hours to reward good behaviour by giving out free MTR tickets to 50 passengers every day.



## EMSD Open Day

EMSD held its first Open Day in June 2009 and invited members of the public to visit its headquarters building in Kowloon Bay. Re-furbished from a previous air cargo terminal, the EMSD Headquarters is a showcase of eco-friendliness and a commitment to the community of Hong Kong. The headquarters had a full house on the day when more than 3,000 citizens signed up to join the tour of our Education Path along with the Exhibition Gallery on the ground floor, the display area on the seventh floor, as well as the rooftop pavilion where the public could take a close look at one of the largest photovoltaic systems in Hong Kong. Members of the public also had fun with the interactive energy saving games and gained more in-depth knowledge about renewable energy and technologies.



## Participation in Community Activities

### EMSD Staff Club Volunteer Team

The Staff Club Volunteer Team provides regular household repair services to elderly people and the needed. Arranged by Yan Oi Tong on a monthly basis, the volunteer team travels to the home of the needed and provides repair services on their household appliances.



### EMSD Staff Club Chinese Orchestra Performance on International Rehabilitation Day

At the invitation of Yan Chai Hospital Sheung Wan Rehabilitation Service Centre, 25 musicians from our Staff Club Chinese Orchestra performed at an outdoor event in Belcher Bay Park, Sai Wan on 9 January for the International Rehabilitation Day organised by the Central and Western District Council.





### ICT Volunteer Services for the Elderly

EMSD Information and Computer Technology Volunteers supported the 4-session computer course for the elderly organised by YWCA and the Elderly Commission in October 2009. The course covered the handling of digital photographs, Chinese input methods and basic computer knowledge.



### Charity Events

EMSD colleagues are active in a variety of charity events. During the past 12 months, EMSD staff took part in the Hong Kong Community Chest Walk for Millions and the Po Leung Kuk Charity Walk, both in January 2010. Staff also took part in the Eastern Hospital Charity Walkathon 2009 in November 2009, organised by the Pamela Youde Nethersole Eastern Hospital to raise funds to help enhance quality service for the hospital's patients.

The 11 Staff Unions also raised funds in August and September 2009 for victims of the Typhoon Morakot in Taiwan.





# Economic Performance

Contributing to the local economy

## Economic Performance

EMSD plays an active role in the economic development of Hong Kong. Our Trading Services provides services to our customers comprising other government departments and public bodies, and our Regulatory Services provides services to the general public. In turn, these activities create jobs for our staff and business opportunities for suppliers and contractors from whom we purchase goods and services. All of these activities contribute to the local economy.

In addition, our Regulatory Services helps maintain a safe and energy efficient environment which is vital to attracting business activities and investment into Hong Kong. As the regulatory framework for energy efficient products and buildings is likely to grow and mature in the coming years, market demand for low carbon and more sustainable

products and services is set to increase, thus creating more opportunities for business and innovation.

### Overview

Our economic performance is reviewed on a yearly basis through the annual reporting of the business results of the Electrical and Mechanical Services Trading Fund (EMSTF) for our Trading Services, and through the Administrative Budget for our Regulatory Services. More information can be obtained from the EMSTF Annual Report 2009/10 (<http://www.emsd.gov.hk>) and the HKSAR Government's General Revenue Account (Head 42) ([www.budget.gov.hk](http://www.budget.gov.hk)) for a complete review of our financial performance.

### Summary of Key Economic Indicators – Trading Services

	2007/08 (HK\$'000)	2008/09 (HK\$'000)	2009/10 (HK\$'000)
Turnover	3,533,773	3,760,726	4,130,110
Suppliers & Contractors	1,524,659	1,641,131	1,804,857
Total Payroll and Benefits / Staff Costs	1,664,602	1,770,126	1,784,968
Taxation (notional)	56,455	52,950	85,070

### Summary of Key Economic Indicators – Regulatory Services

	2007/08 (HK\$'000)	2008/09 (HK\$'000)	2009/10 (HK\$'000)
Suppliers & Contractors	51,280	58,787	74,060
Expenditure on Energy Efficiency Projects / Renewable Energy Projects & IAQ Projects for Government Departments	72,664	70,818	200,350
Total Payroll and Benefits / Staff Costs	177,490	195,229	194,809

## New Business Development

During the year, we continued to support client departments in their daily operations and E&M projects, in addition to assisting the Government in its policy initiatives to develop Hong Kong's infrastructure and a low carbon economy. The EMSTF team has been working on major infrastructure projects, energy efficiency projects, carbon-cum-energy audits and E&M asset replacement projects. The "green lunch in schools" initiative is also part of our services.

Some of the renowned mega projects commenced in 2009/10 included the Guangzhou-Shenzhen-Hong Kong Express Rail Link, for which we act as an independent checker for the railway systems; and the Kai Tak Cruise Terminal, for which we provide consultancy services and project management services for the implementation of apron facilities and installation of furniture and equipment items. In addition, we have also been engaged in providing related engineering and professional advisory services for some major projects which include the design and build of the Fire Services Department Diving Training Centre, the new Civil Aviation Department Headquarters, the Water Efficiency Labelling Scheme and project management for the retrofitting of plumbing appurtenance with water saving devices in government buildings and schools.

We have also secured further agreements with various government departments for the provision of E&M maintenance and engineering support and monitoring services. The major Service Level Agreements (SLAs) secured during the year included the technical advisory services on testing and commissioning of E&M facilities at the Lo Wu Correctional Institution for the

Correctional Services Department; operation, maintenance and emergency support services to additional sewage treatment facilities for the Drainage Services Department; and technical advisory and monitoring services with regard to the Management, Operation and Maintenance Contract of the Route 8 Tsing Sha Control Area for the Highways Department.

## Employment

As of 31 March 2010, EMSD employed 5,295 staff. This represents a 4.5% increase on the previous year. Staff cost including payroll, Mandatory Provident Fund contribution, allowance, and fringe benefits was \$1.98 billion.

## Procurement of Goods and Services

We regularly work with our consultants, suppliers and contractors who support us in providing services to the public and our client departments. For the purchase of materials and services, we strictly adhere to the procurement procedures and tender processes for various types of contracts according to the guidelines set by the Development Bureau (Works), the Financial Services and the Treasury Bureau and the Government Logistics Department. The expenses on contractors and suppliers in 2009/10 were approximately \$1.88 billion.



# Awards and Recognition

## Awards and Recognition

Every year EMSD staff receive awards both from the Government and also external associations in recognition of their outstanding performance at work or community service. We also participate in events, competitions and certification exercises where appropriate to keep ourselves abreast of the best practices and standards of excellence in different areas.

The following are the key awards and recognition won in 2009/10:

### Six Awards in Civil Service Outstanding Award Scheme

Thanks to good work by staff, EMSD won six awards in the Civil Service Outstanding Service Award Scheme 2009, namely:

- Departmental Award: Partnership Award Second Runner-up for the joint project "Contemporary Wireless Traffic Surveillance System" with Transport Department
- Departmental Award: Partnership Award Merit Award for our participation in the "Science in Public Service"

- Team Award: Specialised Service Award Merit Award for our "Olympic Equestrian Special Duty Team"
- Regulatory Enforcement Service Award: Champion Award for our "Smart Electrical Safety Regulator" entry
- The "Smart Electrical Safety Regulator" entry also won the Regulatory Enforcement Service Award: Special Citation (Cost Effectiveness)
- Regulatory Enforcement Service Award: Merit Award for our "Best of the Gas" entry

### Young Engineer Recognised for Outstanding Community Service

Mr TSE Lok-him, an electronics engineer of the Health Sector Division, was honoured with the Certificate of Merit at the Young Engineer of the Year Award 2010 organised by the Hong Kong Institution of Engineers. Mr Tse joined EMSD in 2000 and currently oversees the management of electronic and biomedical equipment maintenance and project management. He was noted for his outstanding contribution to engineering and client services, as well as exemplary service to the department and the community.



### Technician Wins Merit Award in World Skills Calgary 2009

Mr CHAN Chun-man, an air-conditioning technician with our Health Sector Division, won a Merit Award in the 40th World Skills Calgary 2009, a biennial skills competition for young technicians aged 23 or below from all over the world. Competing against 900 participants from over 50 countries and areas, Mr Chan represented Hong Kong in the four-day contest and demonstrated exceptional skills in various tasks relating to the installation of air-conditioning systems while adhering to strict safety requirements. Mr Chan is a graduate of EMSD's Apprentice Training Scheme.



### Outstanding Vehicle Apprentice Award

Three vehicle apprentices from EMSD's Apprentice Training Scheme won awards in the Outstanding Vehicle Apprentice Award organised by the Vocational Training Council's Automobile Training Board held in November 2009. Mr Wong Hoi-ho and Mr Li Chun-man won the fifth and sixth awards respectively, while Mr Cheung Man-wai won a merit award.



### Ombudsman's Award for Handling Complaints

Mr Tan Tat-kwong of our Gas Standards Office won a 2009 Ombudsman Award for Officers of Public Organisations for his outstanding liaison work and communication with the LPG taxi trade. He was noted for his outstanding leadership and performance in making prompt responses to the trade's complaints and enquiries with regard to a gas supply issue at dedicated LPG stations.



## Municipal Services Staff Commended for Contribution to the Hong Kong East Asian Games 2009

Some 230 staff members from the Municipal Sector Division received Certificates of Appreciation from the Home Affairs Bureau and the 5th East Asian Games Planning Committee in recognition of their outstanding contribution to the event which was successfully held in December 2009. The team provided technical advice, operational support as well as stand-by services with regard to E&M, air-conditioning, building services and electronic systems at 18 venues and improvement projects on various electrical, video and broadcast and electronic timing systems.



## Considerate Contractors Site Award for EMSTF Contractor

The EMSTF Contractor, Autotoll Limited, won the merit award in the Considerate Contractors Site Award Scheme 2009 with their project "Expansion of Journey Time Indication System to Kowloon". The Project Division's role as a supervisory party for the project has significantly contributed to the

winning of the award. The award is organised by the Development Bureau annually to promote occupational health and safety for contractors and site supervising organisations.



## GRI Indicator Index

Indicators		GRI Reference	Page Reference
Strategy and Analysis			
		1.1, 1.2	7 - 10
Organisational Profile			
		2.1 - 2.10	3 - 5, 22 - 24, 34 - 39
Report Parameters			
Report Profile		3.1 - 3.4	1, 42
Report Scope and Boundary		3.5 - 3.11	1, 2, 5, 40
GRI Content Index		3.12	40
Assurance		3.13	42
Governance, Commitments and Engagement			
Governance		4.1 - 2, 4.4	3, 5, 6, 22 - 24
Stakeholder Engagement		4.14 - 4.16	6, 22 - 24
Management Approach and Performance Indicators			
Economic	Economic Performance	EC1, EC3	9 - 11, 34, 35
Environmental	Materials	EN1, EN2	19, 20, 41
	Energy	EN3, EN5, EN6	11, 19, 20, 41
	Water	EN8	19, 41
	Emissions, Effluent and Waste	EN16, EN18	20, 41
	Products and Services	EN26	13 - 17, 20
	Transport	EN29	20
	Labour Practices and Decent Work		
Social	- Employment	LA1	22, 35
	- Occupational Health & Safety	LA6, LA7	23
	- Training and Education	LA10, LA11	22, 41
	- Diversity & Equal Opportunity	LA13	22
	Human Rights		
	- Freedom of Association & collective Bargaining	HR5	24
	Society		
	- Community	SO1	13 - 20, 25 - 32
	Product Responsibility		
	- Product & Service Labelling	PR5	24

For more information about the GRI indicators, please visit the website <http://www.globalreporting.org/Home>

## Summary of Statistics

Resource	2007/08	2008/09	2009/10
Electricity (kWh) <sup>#</sup>	12,620,831	12,311,211*	11,962,512
Towngas (MJ)	317,000	277,248	341,904
Water (m <sup>3</sup> )	69,000	59,878	37,027
Diesel (l)	56,194	118,861*	136,074
Gasoline (l)	464,259	386,222*	513,083
Paper – A3, A4 (ream)	29,326	28,459	27,379
Paint & Solvent (l)	44,626	42,755	33,506
Lubrication Oil (l)	140,599	124,520	123,602
Grease (kg)	2,212	2,249	1,958
Refrigerant (kg) (e.g. R22 & R134a)	16,379	15,803*	18,915
Industrial Gas (m <sup>3</sup> ) (e.g. Oxygen, Argon & Acetylene)	3,733	3,611	2,753
Battery Electrolyte (l)	2,520	1,620	1,947
Tubeless Tyre (no.)	9,064	8,108	9,103
Outer Cover Tyre (no.)	3,393	3,278	3,272
Inner Tube (no.)	2,422	2,102	1,944

### Emissions, Effluents and Waste<sup>@</sup>

Waste Paper (kg)	16,748	14,124	23,535
Toner Cartridges (no.)	3,058	2,957	3,309
Batteries (kg)	3,553	2,896	3,626
Metal Scraps (kg)	47,714	30,375	37,270
Waste Oil (l)	128,778	116,616*	117,896
Vehicle Tyre (no.)	12,210	7,989	8,172
Mercury Lamp including fluorescent tube (no.)	107,039	113,007	145,550

### Staff

Number of Accidents per 1,000 Staff (reportable)	5.46	5.87	4.38
Staff Satisfaction (out of a score of 10)	6.50	Not applicable	6.30
Training (average training days/staff)	5.67	5.25	5.00

<sup>#</sup> Electricity Consumption of canteen, rented offices not included

<sup>\*</sup> Figures published last year corrected

<sup>@</sup> The concerned wastes are collected by the licensed contractor for material recycling or disposal.

## Independent Verification Statement



### VERIFICATION STATEMENT

#### Scope and Objective

Hong Kong Quality Assurance Agency (HKQAA) was commissioned by the Electrical and Mechanical Services Department (the EMSD) to undertake an independent verification of the Social and Environmental Report 2009/10 ("the Report"). The Report stated the past performance of the EMSD on economic, social and environmental aspects for the period between 1<sup>st</sup> April 2009 and 31<sup>st</sup> March 2010. The purpose of the verification exercise was to independently review the materiality, completeness, accuracy, consistency and reliability of the information presented in the Report.

The verification covered all reporting contents presented<sup>1</sup> and the scope of the verification included:

- Assess whether the information presented is accurate and represents the social and environmental performance of the EMSD;
- Verify the reliability of data and information management mechanism for gathering, collating, analyzing and presenting the data in the Report;
- Assess the overall reasonableness and balance of reporting with regard to the information presented;
- Identify the relevant areas for future improvement.

#### Methodology

The verification procedure included reviewing relevant documentation, interviewing responsible persons with accountability for preparing the Report and verifying selected sample of data and information consolidated in the Report. Accuracy of the sampled data and the underlying processes were tested through detailed examination of available evidence to support substantive comments and claims made in the Report. The data and information were carefully verified for accuracy and cross-checked with third party information when available.

#### Conclusion

After a thorough and detailed examination of the Report, our assessment team concludes that the Report provides a structured, balanced, reliable, consistent and accurate presentation of the sustainability management performance of the EMSD in the context of economic, social and environmental aspects for the reporting period. All selected data examined during our verification were consistent with the supporting information reviewed.

In conclusion, the information provided in the Report was material, complete, accurate, consistent and reliable in the presentation of the EMSD commitments, initiatives, performance and achievements for the reporting period, to the best knowledge of our assessment team.

Signed for and on behalf of HKQAA

A handwritten signature in black ink, appearing to read 'Winniss Kong'.

Winniss Kong  
Auditor, Strategic Business Branch  
May 2011

<sup>1</sup> Verification covered the corrected data for 2008/09 shown in "Summary of Statistics" on Page 41 of the Report.

## Feedback Form

Thank you for reading our Social and Environmental Report 2009/10. To help us improve future editions of our Social and Environmental Report, we would be grateful to have your comments.

1. Which part of the report do you find most informative?	Inadequate		Acceptable		Very Informative
	1	2	3	4	5
a. About this Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. About EMSD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Director's Message	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Challenges and Opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Highlights and Way Forward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Environmental Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Social Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Economic Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Awards and Recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. GRI Indicator Index	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Summary of Statistics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Does the report enable you to understand more about EMSD's performance on environmental issues?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No Comment <input type="checkbox"/>
3. Does the report enable you to understand more about EMSD's performance on social issues?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No Comment <input type="checkbox"/>
4. Overall, how would you rate our report?	Poor <input type="checkbox"/>	Good <input type="checkbox"/>	Excellent <input type="checkbox"/>
5. Other comments and suggestions, please specify			
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6. How can we convey our response to your comments/ suggestions? (Please provide email or contact details for us to follow up.) - Optional			
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Please return feedback form to:

Safety Sub-division, EMSD, 3 Kai Shing Street, Kowloon, Hong Kong

Fax: (852) 2576 1207 Email: [safety@emsd.gov.hk](mailto:safety@emsd.gov.hk)



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