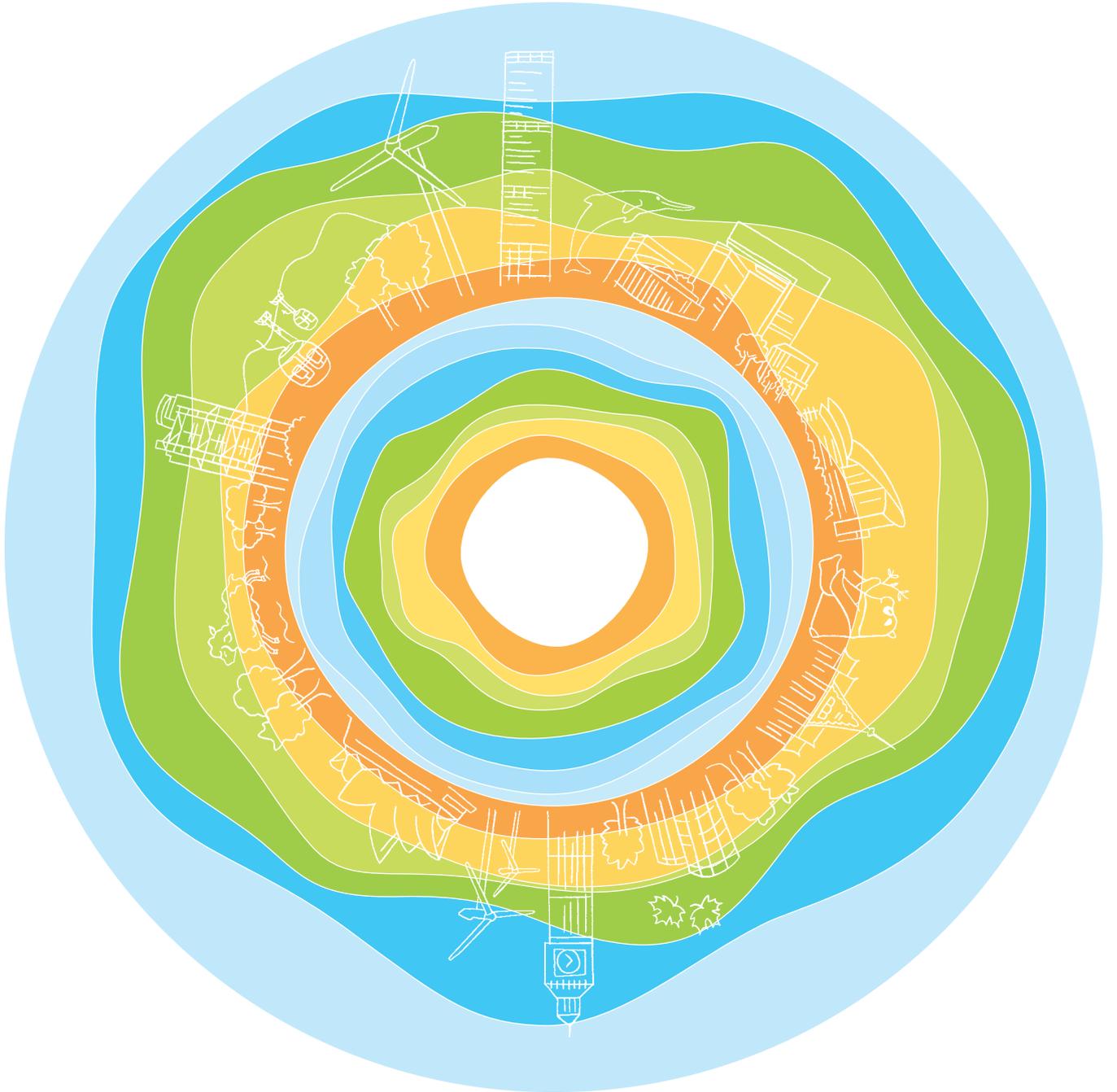


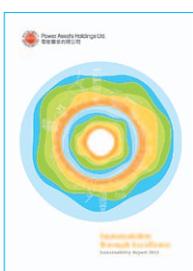
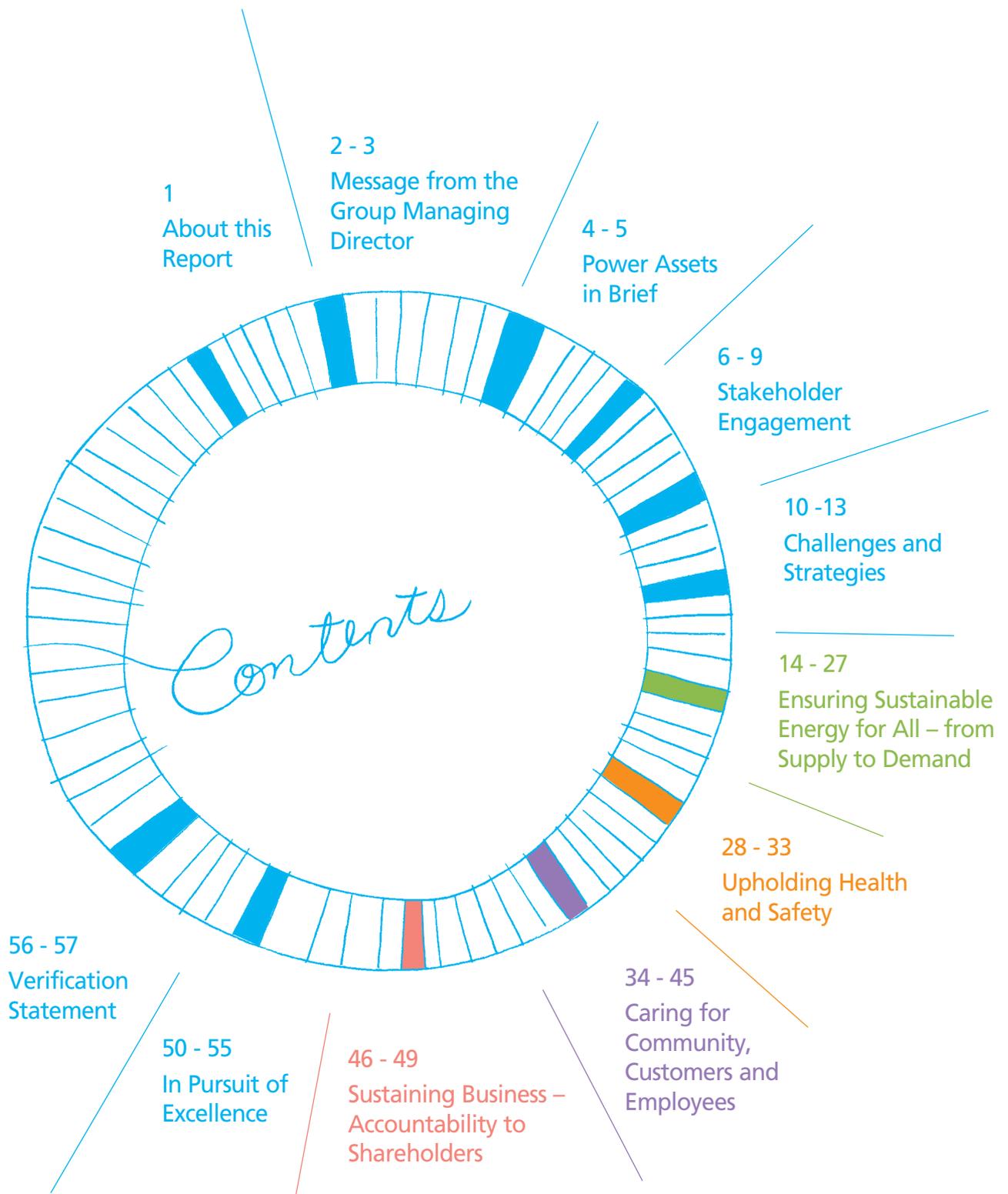


Power Assets Holdings Ltd.  
電能實業有限公司



# Sustainability through Excellence

Sustainability Report 2012



The evolving circular spectral lines on the cover denote the energy supplied by Power Assets. Power Assets is committed to powering up Hong Kong and various cities around the world, adding colour to people's lives. We are driving business growth in harmony with the natural and social environments, achieving sustainability through excellence.

# About this Report

Power Assets Holdings Limited (Power Assets) is a global investor in power and utility-related businesses, with investments in electricity generation, transmission and distribution, renewable energy and gas distribution. Power Assets is headquartered in Hong Kong and is the holding company of The Hongkong Electric Company, Limited (HK Electric).

This is Power Assets' third Sustainability Report, in which we:

- set out our approach, commitments and strategies to sustainability, including corporate social responsibility;
- highlight our key achievements in 2012 with regard to our environmental, social, safety and economic performance;
- outline our plans and targets for the future with regard to our shareholders, customers, employees, business partners and community, and the environment; and
- address other concerns and comments raised by our stakeholders on our sustainability performance and reporting.

The report covers the sustainability performance of Power Assets and its subsidiaries over which it has operational control. Performance data from companies in which Power Assets does not have a controlling equity interest is not included. Employees of contractors and subcontractors for whom Power Assets has no direct responsibility are not considered as part of its workforce. All numerical data are presented as absolute figures and all financial data are in Hong Kong Dollars, unless otherwise specified. Data collection and analysis are conducted based on relevant guidelines or standards, for example ISO 14064 for greenhouse gas emissions.

The preparation of this report involved following the internationally recognised Global Reporting Initiative's (GRI) latest Guidelines, version G3.1, and the Electric Utility Sector Supplement at the "A+" Application Level. Most of the report content is selected based on GRI's principles and guidance. Please refer to our online [GRI Content Index](#).

Power Assets has formalised and conducted a systematic engagement exercise to identify significant issues that are of concern to our stakeholders. Materiality, based on applicability, degree of impact and risk, and stakeholder interest has been considered for each of the GRI reporting elements.

The two assurance measures used, the Third-party Independent Verification and GRI Application Level Check, assure the report's credibility and the Company's commitment to be transparent about sustainability impacts and also our willingness to manage them responsibly. Please refer to the *Verification Statement* at the end of this report.

This report features three main chapters: *Power Assets in Brief*, *Stakeholder Engagement*, and *Challenges and Strategies*. The *Challenges and Strategies* chapter provides detailed consideration of the following **Imperatives**:

- **Ensuring Sustainable Energy for All – from Supply to Demand**
- **Upholding Health and Safety**
- **Caring for Community, Customers and Employees**
- **Sustaining Business – Accountability to Shareholders**

The **Imperatives** have been identified as core sustainability considerations, each consisting of up to four related **Issues**. A "Risk-based Management Approach" reporting framework has been adopted to explore each **Issue** by first identifying the relevant stakeholder expectations and associated risks and challenges, and then reporting on our major actions and achievements in addressing them. Case stories demonstrating our actions are also included for some of the **Issues**. We also summarise our past performance and state our future goals in the *In Pursuit of Excellence* chapter. For easy reference, a summary version of the report is available.

We welcome comments on this report as well as on our sustainability performance. Please feel free to complete our Online Feedback Form. The Summary Version of this report, Online Feedback Form and other relevant information including financial data and the Company's Annual Report are available on our corporate website ([www.powerassets.com](http://www.powerassets.com)).

# Message from the Group Managing Director



At Power Assets, we strive to achieve sustainable development through the pursuit of excellence, one of the Company's core values. In this Sustainability Report 2012, I am pleased to report on our efforts in this journey as a responsible and ethical business.

Looking back, 2012 was a year of mixed feelings for Power Assets. While we are happy with the progress made in attaining our sustainability targets, benchmarked against internationally acknowledged standards, our hearts were torn by the ferry collision tragedy that occurred on 1<sup>st</sup> October, which claimed 39 lives including seven of our beloved colleagues.

The tragic incident was a shock not only to us, but to the whole community and the repercussions were felt far and wide. Many of you shared our sorrow and I wish to take this opportunity to express our sincere gratitude for the enormous outpouring of sympathy and generous support from the Hong Kong community. As we emerge from the shadow of the tragedy, we will continue our support to those affected while adopting measures to avoid similar incidents.

On a more positive note, our steadfast commitment to sustainability has continued to earn us recognition in Hong Kong and internationally. In 2012, Power Assets achieved a higher "AA" rating in the Hang Seng Corporate Sustainability Index and for the first time, entered the Dow Jones Sustainability Asia Pacific Index as one of the seven Hong Kong companies selected for the Index.

Power Assets also became the first Hong Kong company included in the Global 500 Carbon Disclosure Leadership Index of the Carbon Disclosure Project.

For our business to operate in a transparent and ethical manner, we must listen to the views of all our stakeholders. Throughout the year, we continued to expand the platforms for stakeholder engagement and interaction, which we are pleased to share in this report. Taken as a whole, these initiatives have increased dialogue and gleaned helpful feedback on our operations and service pledges. We will continue to ensure that Power Assets remains in touch with, and accessible to, all our stakeholders, and most important, we will listen with an open mind.

On the operational front, the year was characterised by steady growth in our business with an increase in revenues generated overseas. During 2012, Power Assets made two significant new investments – acquiring a stake in one of the eight major UK gas distribution networks and investing in a renewable energy power transmission link in Australia. We will continue to look for suitable investment opportunities that strengthen our energy portfolio on the global arena.

The success of our core business remains contingent on the reliability of our service. I am delighted to report that we continue to excel in electricity supply reliability, with a reliability rating of over 99.999% in Hong Kong since 1997. We have also provided more information to customers in their bills, enabling them to track their consumption patterns and to better understand their own carbon footprint.

“Looking ahead, sustainability will continue to play a prominent role in our business, whether it is in growing our portfolio, taking action to reduce our environmental impact, or as we work with our employees and the community. ”



Climate change continues to pose a significant challenge for our business. We are committed to reducing emission intensity levels, having met all emission caps set by the HKSAR Government. In 2012, we expanded the solar power system at our Lamma Power Station from 550 kW to nearly 1 MW while our proposed wind farm project is making satisfactory progress with the wind monitoring exercise just completed. Furthermore, we are taking steps to increase the use of low sulphur coal in our coal-powered facilities. We are also working closely with the HKSAR Government in its endeavours to achieve carbon intensity reduction and to promote the use of cleaner fuels.

On environmental education, our initiatives have encouraged the public to consider the future in terms of their own lifestyles and their impact on the environment. Whether through our annual Smart Power Campaign to call for energy saving or the HK Electric Clean Energy Fund to encourage the study and application of renewable energy on campuses, we continue to enhance public awareness of the need for environmental protection.

As a sustainable business, we remain mindful of giving back to the community, particularly to the vulnerable and the needy. In 2012, we continued to put this into action through volunteer services, as well as numerous corporate donation and sponsorships. Our elderly care programme, “CAREnival for the Elderly” aimed to encourage single elders to seek help when needed, was awarded second runner-up of the “2011-12 Best Corporate Volunteer Service Project”.

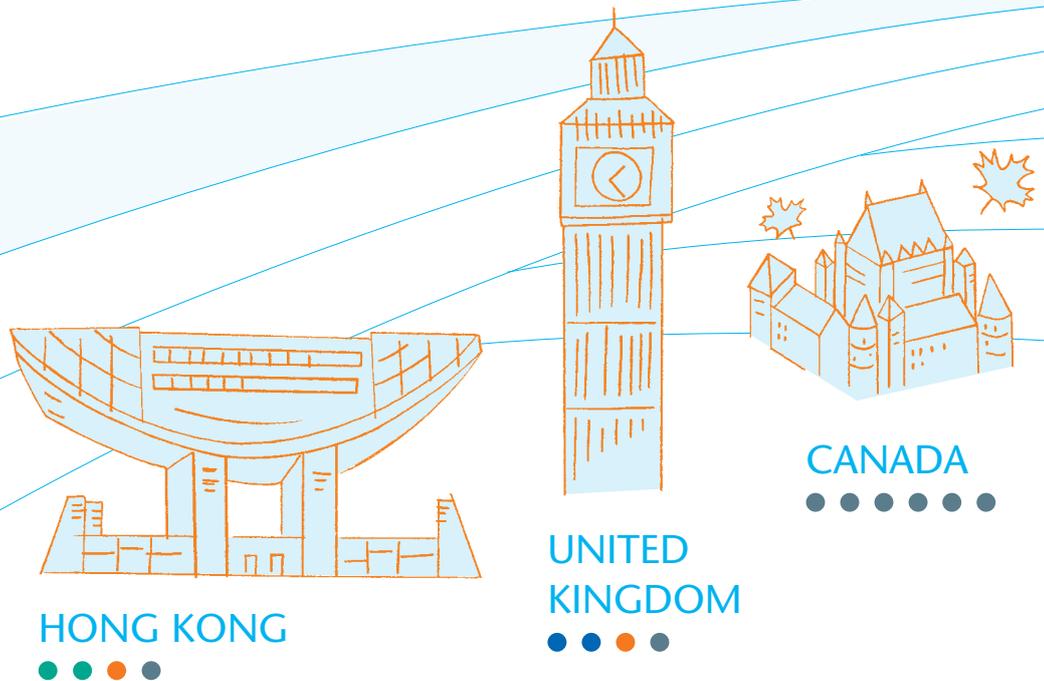
No report on sustainability would be complete without a mention of a company’s commitment to the development and well being of its employees. At Power Assets, employee wellness is always close to our hearts. We will continue to invest in our employees to ensure that Power Assets remains an employer of choice that provides equal opportunities to all. Beyond our focus on training and equipping our colleagues to perform well at work, we are also committed to promoting a healthy work-life balance and creating platforms for our staff to shine and gain recognition.

Looking ahead, sustainability will continue to play a prominent role in our business, whether it is in growing our portfolio, taking action to reduce our environmental impact, or as we work with our employees and the community. We will do our part to tackle the challenges that lie ahead and will also share our successes. I look forward to updating you on our developments and next steps in sustainable growth.

**Wan Chi-tin**  
Group Managing Director  
April 2013

# Power Assets in Brief

Power Assets Holdings Limited is a global investor in power and utility-related businesses with investments in electricity generation, transmission and distribution, renewable energy and gas distribution.



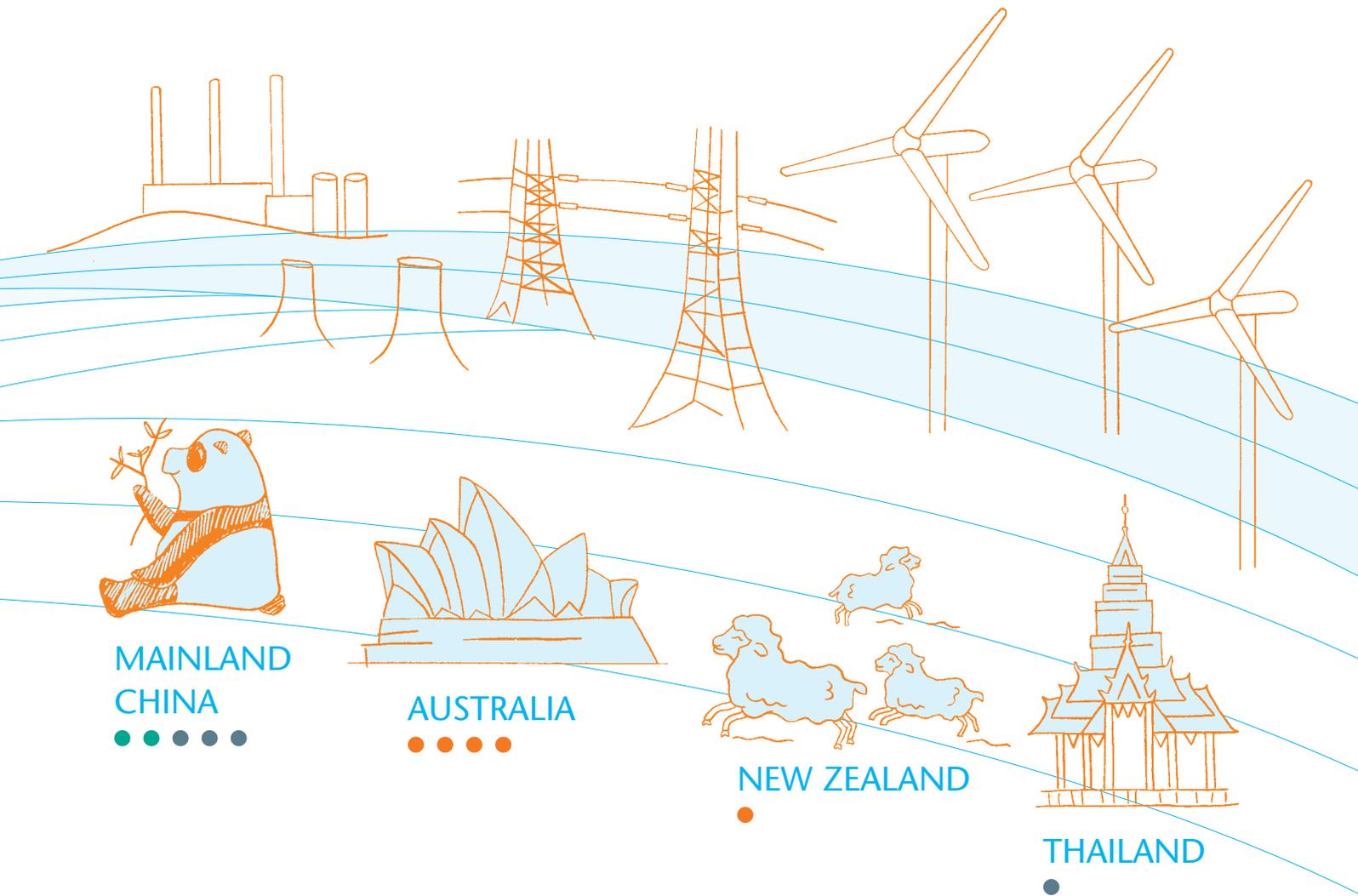
-  Power Generation
-  Electricity Distribution
-  Gas Distribution
-  Renewables

## Our Business

From serving as one of Hong Kong's key electricity providers for more than a century, we have grown beyond the city and established a strong global presence with investments in the United Kingdom, Australia, New Zealand, Mainland China, Canada and Thailand, bringing sustainable energy and lighting up the lives of millions in different parts of the world. We currently serve a total of over 15 million customers worldwide and have interests in over 10,000 MW power generation assets and over 440,000 km of power and gas networks. For details of our investment portfolio, please refer to our corporate website ([www.powerassets.com](http://www.powerassets.com)).

Listed on the Stock Exchange of Hong Kong, Power Assets is a constituent share of the Hang Seng Index and the Hang Seng Corporate Sustainability Index. In 2012, Power Assets became the first Hong Kong company included in the Global 500 Carbon Disclosure Leadership Index of the Carbon Disclosure Project and also for the first time entered the Dow Jones Sustainability Asia Pacific Index.

Power Assets has three major subsidiaries in Hong Kong – The Hongkong Electric Company, Limited (HK Electric), Power Assets Investments Limited (PAI) and Associated Technical Services Limited (ATS).



### The Hongkong Electric Company, Limited

HK Electric is the main operating company of Power Assets in Hong Kong. Founded in 1889 and being one of the longest established power companies in the world, HK Electric is responsible for the generation, transmission and distribution of electricity to Hong Kong Island and Lamma Island.

HK Electric has a long record of providing a safe and reliable electricity supply to its half a million customers in Hong Kong at a reasonable and affordable price. Realising how important reliability is to ensure Hong Kong remains a major financial centre and a world-class city, HK Electric has been investing in advanced and quality systems to sustain Hong Kong's strong economic growth and a good quality of life for its citizens. We have maintained a supply reliability rating of over 99.999% since 1997 – one of the best records in the world.

All the generating facilities of HK Electric are located at Lamma Island. Our Lamma Power Station – one of the most

compact power stations in the world – has a total installed capacity of 3,737 MW. It is also the home of Hong Kong's largest solar power system and the territory's first and only commercial-scale wind turbine, Lamma Winds.

### Power Assets Investment Limited

Established in 1997, PAI is the wholly-owned international arm of Power Assets, responsible for Power Assets' investment activities in the energy sector outside Hong Kong. To date, PAI has a portfolio of 15 investments over six countries in four continents, representing interests in 6,800 MW of power generation assets and 440,000 km of electricity and gas networks.

### Associated Technical Services Limited

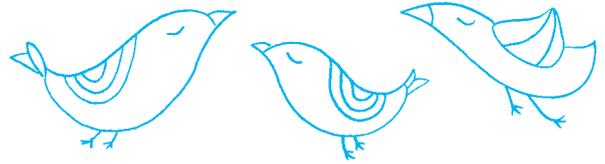
ATS, a wholly-owned subsidiary of Power Assets, was established in 1975 as an engineering consultant firm serving the electricity supply industry. It is one of the first utility companies in Hong Kong to provide energy-related consultancy and engineering services.

# Stakeholder Engagement

As an inclusive and continuous process, Power Assets places much emphasis on stakeholder engagement and we have cultivated relationships with many different stakeholders. Listening to, understanding and balancing the varied and sometimes conflicting priorities of different stakeholder groups is core to our approach to stakeholder engagement.

## Ongoing Engagement with Stakeholders

Maintaining ongoing dialogue and openness assures our stakeholders that Power Assets continues to be transparent about our operations and performance. Such constructive interactions enable us to make responsible and sustainable decisions.



Stakeholder Group	Why stakeholder matters?	Common Engagement Channel
Employees	Working for Power Assets is an important aspect of life for our colleagues.	     
Customers	Electricity is a necessity for our customers.	     
Shareholders & Investment Community	Power Assets is accountable to investors.	  
Business Partners	Having common CSR values is essential in business relationships.	   
Non-governmental Organisations (NGOs)	NGOs are among Power Assets' key CSR partners.	    
Lamma Island Community	They are in the vicinity of and may be affected by our Lamma Power Station.	   
Government	The Government has a regulatory role on utilities like Power Assets.	   
Media	The media is an important partner in corporate communication with the public.	 

 meeting / conversation / enquiry  
 specific consultation committee / panel  
 survey / suggestion scheme  
 visit / talk / seminar / workshop  
 publication / website / briefing  
 advisory service / community programme

We strive to continuously engage our stakeholders, listen to their opinions and concerns, and address them as practicably as possible, while ensuring that they understand our aspirations, commitments and limitations. Examples of the engagement activities for each stakeholder group during the year include:

- Safety and Environmental Climate Index Surveys for our employees
- Customer Liaison Group meetings
- Shareholders' visits to our Lamma Power Station
- Safety, Health and Environment Forum for our Business Partners
- Stakeholder Liaison Group meetings and Fisheries Review & Consultation Committee meetings for the offshore wind farm project
- Home visits to Lamma villages
- Joint Consultation meetings with our employees

## Specialised Stakeholder Engagement

Stakeholder engagement forms a significant part of the process that goes into preparing the Company's Sustainability Report and it is important to align the materiality of the report with stakeholder expectations. Just as we have done for the past two years, we appointed an independent consultant to conduct the specialised stakeholder engagement exercise for 2012, with a view to:

- Gathering the opinions and assessing the expectations of stakeholders on this year's Sustainability Report and in respect of the sustainability performance of Power Assets; and
- Identifying and prioritising sustainability issues according to their views.

Six major groups were identified for inclusion in this exercise, namely employees, customers, shareholders and the investment community, business partners, NGOs and the community on Lamma Island. Engagement methods used for this exercise included focus groups and one-on-one interviews. Participants were requested to provide their replies to a list of questions relating to the performance of Power Assets on sustainability matters and their expectations for this year's Sustainability Report.



## Expectations of Our Stakeholders

Our stakeholders have certain expectations of Power Assets, and assessing their perceptions of our performance in meeting these expectations provides a valuable indicator of our current and future performance. While most respondents commended the quality of our performance, some concerns were raised and many suggestions made for further improving our operations in different areas.

These issues of prime concern form the basis of the four **Imperatives** outlined in the *Challenges and Strategies* chapter of this report.

## Issues of Prime Concern

Air quality, climate change, the environment and renewable energy

Improved publicity, greater visibility and broader communication

Tariff increases and fairness

Improved targeting of community programmes

Maintaining a high standard of customer service

On-going training and development of employees

Optimised management and better performance



## Stakeholder Dialogue

Mr. Ken So  
Chief Executive,  
The Conservancy Association



“Other than green education, what is HK Electric doing to create a low carbon Hong Kong?”

“We are committed to reducing carbon emissions and incorporating wide-ranging climate protection measures into our operating activities. We continue to work closely with the HKSAR Government on initiatives to achieve carbon intensity reduction and to promote the use of cleaner fuels. Our own renewable energy initiatives are making steady progress, with the extension of the solar power system at our Lamma Power Station nearing completion and our offshore wind farm project beginning to take shape. Our longer term goal is to reduce the use of coal overall. In the interim, we are taking steps to increase the use of low sulphur coal in our coal-powered facilities.”



“We are exploring and widening the application of renewable energy in power generation.”

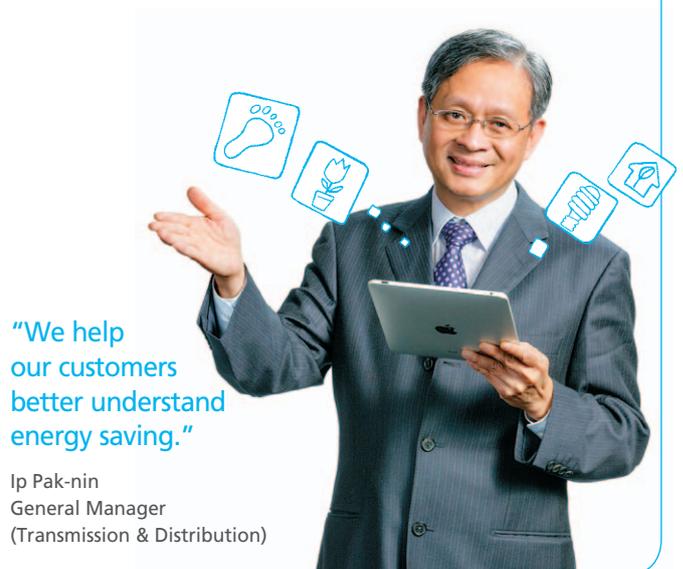
Yee Tak-chow  
General Manager  
(Corporate Development)

Ms. Lo Tip-chun  
Member of Eastern  
District Council and  
HK Electric’s Customer  
Liaison Group



“What is HK Electric doing to minimise the impact of electricity tariff adjustments on Hong Kong citizens?”

“We hope you could understand that in an inflationary environment, it is challenging to maintain prices at a constant level. We have recently increased tariffs, but by less than the actual inflation rate in Hong Kong. We have also sought to mitigate the impact on our customers. First, by focusing efforts on demand-side management, which is really about helping customers help themselves through initiatives such as free energy audits and better understanding of energy saving. We are also continuing to offer tariff concessions to the underprivileged and the elderly.”



“We help our customers better understand energy saving.”

Ip Pak-nin  
General Manager  
(Transmission & Distribution)

Mr. Tam Siu-hin  
Employee from  
Joint Consultation  
Committee



“How does the Company encourage and help colleagues get involved in community initiatives?”

“We actively encourage our colleagues to care for and serve the community through volunteering. We work closely with NGOs on community initiatives. One example is our ‘Good Neighbour Programme’ that provides funding and support for employees to develop initiatives that extend care and support to the community in the spirit of a ‘good neighbour’. Colleagues who complete the Programme’s mental health training series can potentially be Good Neighbour Ambassadors to further promote the caring culture within the Company.”

*Good Neighbour  
Ambassadors*



“We actively encourage our employees to serve the community.”

Trini Chan  
General Manager  
(Human Resources)

Mr. Simon Lee  
Executive Director,  
Morgan Stanley | Research



“How are issues of transparency and corporate governance integrated into Power Assets’ management approach to minimise shareholder risk?”

“We are committed to maintaining a high level of transparency in communications with our shareholders and all other stakeholders in order to address the increasing demand from them for quality disclosure on environmental, social and governance issues. We ensure a high level of corporate governance through compliance with the Code on Corporate Governance Practices as set out in the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited. We have continued to demonstrate our transparency and competency on managing risks related to environmental, social and governance issues by publishing annual Sustainability Reports fulfilling GRI ‘A+’ Application Level, participating in the Carbon Disclosure Project, and being the first Hong Kong company included in the Global 500 Carbon Disclosure Leadership Index.”



“We maintain a high level of transparency and corporate governance.”

Ivan Chan  
Chief Financial Officer

# Challenges and Strategies

The challenges facing the global energy sector today are significant. With our vision to excel in the power business in Hong Kong and global markets, we must respond to critical social, environmental and economic challenges by engaging our stakeholders to understand and address their concerns. In this chapter we set out these key challenges, how they can affect our business and how we are responding to them.

## The Challenges Facing Power Assets

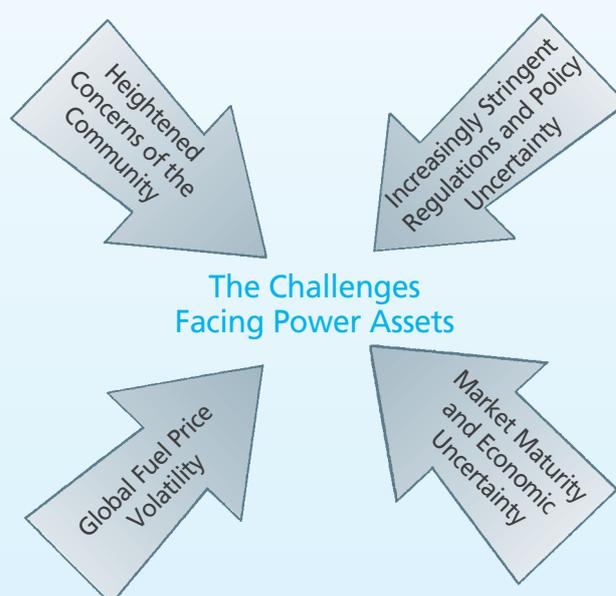
### Heightened Concerns of the Community

Power Assets must address the increasing expectations of our stakeholders, who call for us to be transparent and to conduct our business in a manner that places their interests at heart. We must respond to their concerns at every level, from addressing broad issues such as the impact of our operations on the environment, to the very direct impact that our supply reliability and tariff issues may have on the daily life of our customers.

### Increasingly Stringent Regulations and Policy Uncertainty

As the HKSAR Government is reviewing its energy policy to address climate change, the likelihood of increased local regulations may impose significant impact on our operations, both financially and technically. Regulatory change could require HK Electric to further increase investment in emission reduction and energy efficiency enhancement. The knock-on effect could also be an increase in overall operating costs due to the need to reduce emissions by significantly increasing the share of natural gas in our fuel mix.

In fact, HK Electric's business operations are governed by a Scheme of Control Agreement (SCA) with the HKSAR Government. The SCA will expire in 2018 with an option for the HKSAR Government to extend it for another five years and is currently under an interim review between the two parties. With potential changes to the SCA after 2018, such policy uncertainty could warrant a need to reshape our future local energy business model.



### Global Fuel Price Volatility

The outlook for global fuel consumption is characterised by continuing rising prices, particularly in respect of natural gas, which is one of the cleaner and most readily available alternatives to coal. As we embrace the global community's move towards a low carbon future, we must face up to the challenges imposed by increased costs associated with conversion to cleaner fuels and renewable technologies, and determine a clear strategy for mitigating the cost impact on consumers.

### Market Maturity and Economic Uncertainty

Power Assets is a global investor in power and utility-related businesses. The Hong Kong energy market has reached maturity and, with the limited land supply available, even the development of alternative energy presents limited scope for further expansion. As we continue to explore new revenue opportunities, Power Assets must address the challenge of seeking investment opportunities in other economies where we can share our expertise as new power business markets open up.

## Addressing the Challenges: Our Strategies

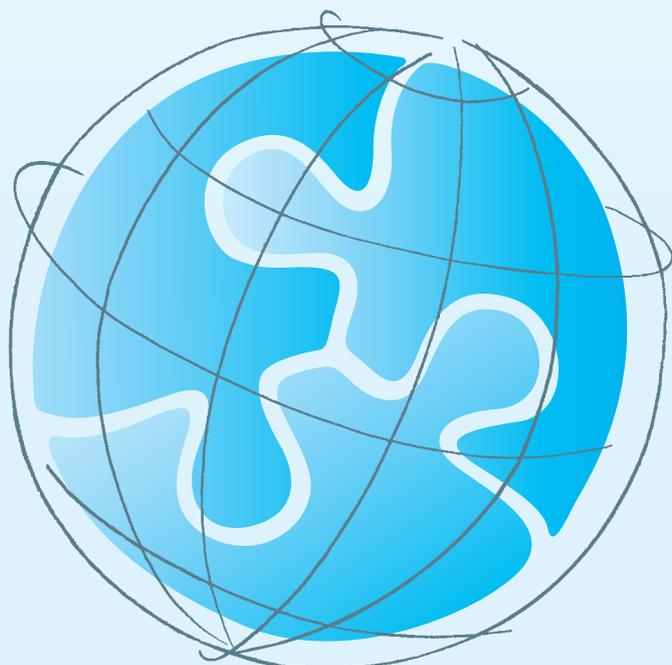
### Our Vision, Mission and Values

Power Assets has a Vision, Mission, Values framework in place, which is the driver for our approach to sustainability and the strategies we develop to fulfil it, and we enforce this framework through strong corporate governance and stringent risk management.



#### Our Vision

- To excel in the power business in Hong Kong and global markets



#### Our Mission

- To enhance shareholders' value
- To deliver excellent customer services and supply reliability
- To nurture a harmonious, efficient and committed workforce
- To care for the communities that we serve
- To contribute to global efforts in combating climate change
- To care for the environment in all our activities



#### Our Core Values

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

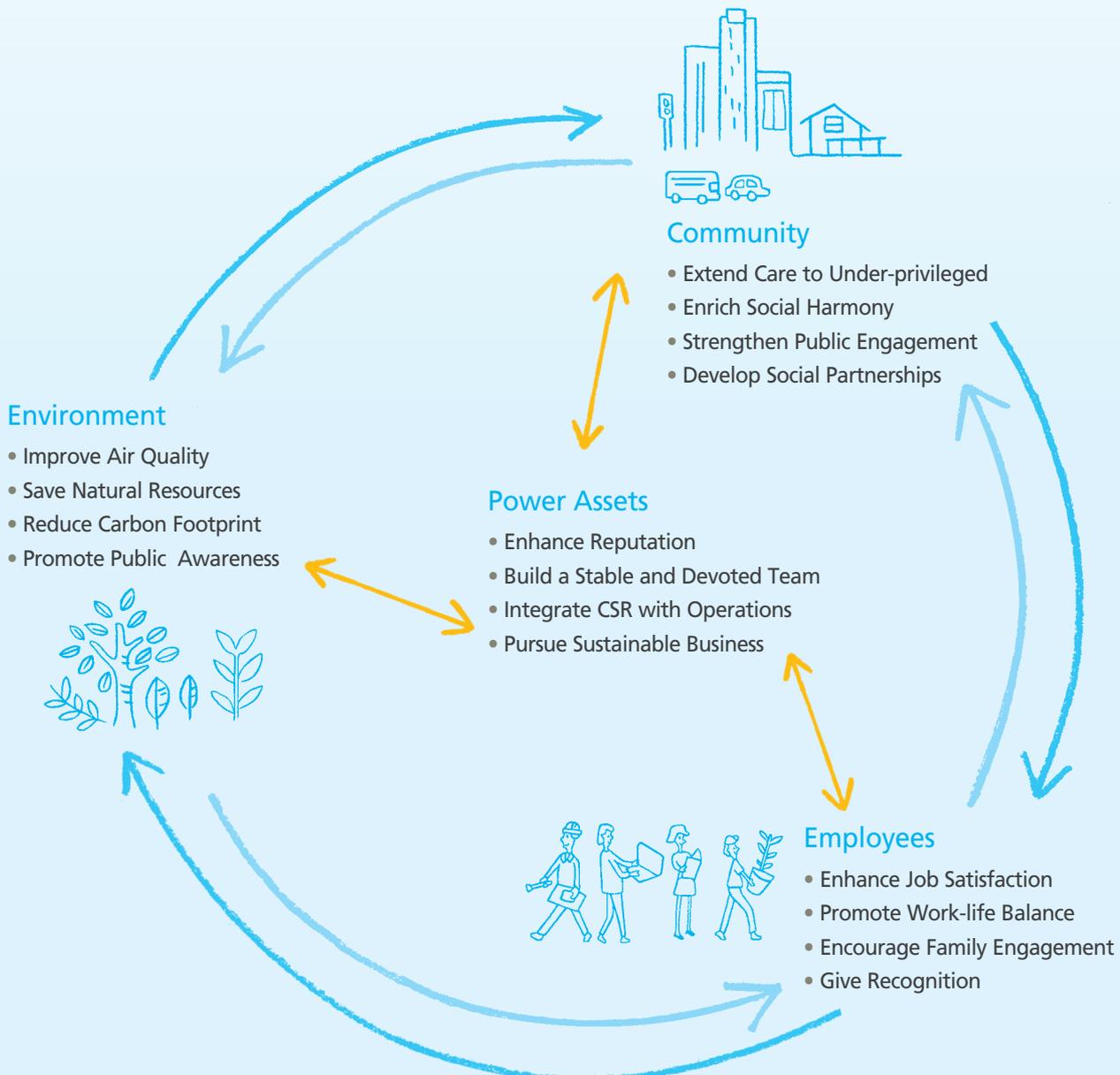
### Responsible Corporate Citizenship and Ingrained Sustainability

We strive to continue growing our business in a socially and environmentally responsible manner, while ensuring stable financial returns for our shareholders. We continue to extend our care to the environment, the community, our customers and employees.

Sustainability, in all its forms, is integral to our business. It is a fundamental consideration for us in all decision making encompassing a balance among social, economic and environmental dimensions. Through this, we endeavour to bring long-term benefits to all our stakeholders and to the environment.

### Total Caring Culture

Power Assets advocates a philosophy of total caring: caring for our people, our community and our environment. We believe that our business is only sustainable if operations are in harmony with society and with our surroundings. We have nurtured a Total Caring Culture, with its implementation best reflected in the work of our Corporate Social Responsibility (CSR) Committee, which is chaired by the Group Managing Director and drives our CSR efforts across the Company.



## Stakeholder Engagement

We are mindful of the risk of being out of touch with our stakeholders on key issues. For our business to operate in a transparent and ethical manner with minimised risks, we ensure that Power Assets remains in touch with, and accessible to, all our stakeholders with an aim to understand and address their concerns. We have established expanding platforms that facilitate stakeholder engagement, enabling us to collect feedback and suggestions on our operations and service pledges. More details can be found in the *Stakeholder Engagement* chapter of this report.

## Strong Corporate Governance

Power Assets has adopted a robust culture of corporate governance, which is fundamental to the smooth, effective and transparent operation of our business. We believe that implementing a high standard of governance minimises risks, attracts investment, protects the rights of shareholders and stakeholders, and can enhance shareholder value. Our website ([www.powerassets.com](http://www.powerassets.com)) and Annual Report address corporate governance matters in more details.

## “Risk-based Management Approach” Reporting Framework

Stringent risk assessment is intrinsic to our management approach and is adhered to on a day-to-day basis throughout Power Assets. We take a long-term and cautious perspective, which is demonstrated through early identification and evaluation of the potential severity and likelihood of risks, and the development of respective mitigation actions.

Four **Imperatives** are identified and presented in this chapter, each consisting of up to four related **Issues**. A “Risk-based Management Approach” reporting framework has been adopted to explore each **Issue** by first identifying the relevant stakeholder expectations and associated risks and challenges, and then reporting on our major actions and achievements in addressing them. Case stories demonstrating our actions are also included for some of the **Issues**.

### Risk-based Management Approach



# Ensuring Sustainable Energy for All

from Supply to Demand



## ISSUES:

**Air Quality and Climate Change**

**Environmental Conservation**

**Supply Reliability and Sustainability**

**Demand Side Management**

The fundamental role of any power utility is to guarantee the availability and reliability of electricity supply. Robust management is reflected in the form of excellent electricity supply reliability to help support Hong Kong's economic development and to sustain its position as one of the world's key trade and financial centres. Balancing this, and of equal importance, is the impact that the supply of energy has on our environment.

Our management approach strives to balance out the above issues and is manifested in the various policies and management systems we have implemented to drive our business forward, namely our corporate environmental and quality policies, and our environmental management, quality management and assets management systems. We also have an Environment Committee in place to oversee the Company's adherence to the environmental policy.

## Air Quality and Climate Change

### STAKEHOLDER EXPECTATIONS

Ensuring clean air and blue skies has become one of the most important issues for the Hong Kong community. The risks posed by negative changes to our air quality and climate have potential impact on our lifestyles and Hong Kong's reputation as Asia's world city.

Adopting low carbon fuel mix, strengthening emission control and enhancing energy efficiency have environmental benefits on local air quality as well as global climate change and are the responsibility of the whole community. Undoubtedly, a key imperative that is driving community sentiment is the demand for greater use of cleaner fuel and renewable energy, and a general move towards a low carbon future.

### RISKS AND CHALLENGES

#### Rising Expectations on Emission Reduction

The energy sector is considered to be one of the major emitters of greenhouse gases and other emissions that have impacts on air quality. As a power utility company in Hong Kong, the business nature of HK Electric requires the burning of fuel which is inevitably carbon dioxide (CO<sub>2</sub>) intensive. The challenges are for the Company to continue to take significant steps to reduce emissions. These include replacing the use of traditional coal with natural gas and renewable energy in order to reduce emissions of not only CO<sub>2</sub>, but also respirable suspended particulates (RSP), sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>). Also, it is a challenging

opportunity for the Company to explore renewable, and potentially more expensive, energy sources.

The challenge is further heightened by the rising expectations of stakeholders and the changing regulatory environment in Hong Kong where the HKSAR Government has been gradually tightening the emission allowances on our generation facilities since 2006, in particular after the implementation of the new air quality objectives set with reference to the World Health Organisation's guidelines.

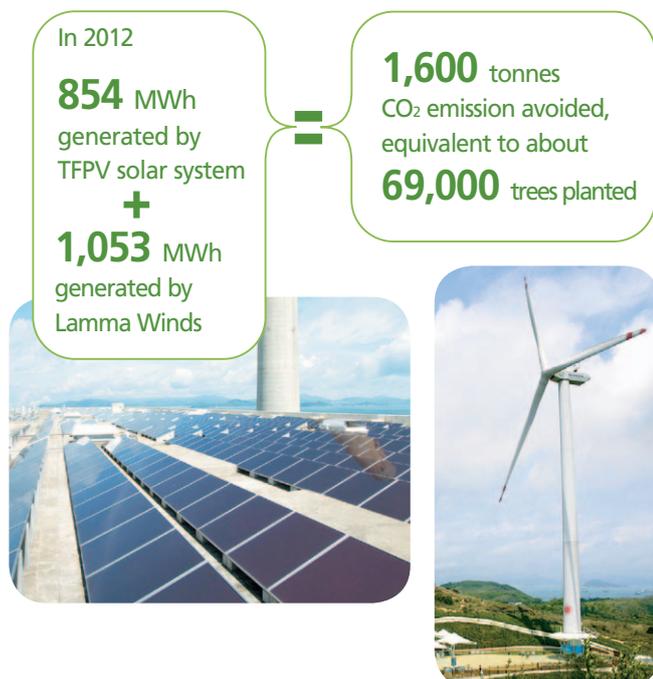
#### Policy Uncertainty

In the aftermath of the Fukushima incident in 2011, many countries have been reviewing the safety of using nuclear power. Similarly, the HKSAR Government will further revisit the fuel mix proposed in 2010, taking into account the views of the local community and developments in mainland China's nuclear power safety policies. It will strive to strike a balance among the four competing energy policy objectives of safety, reliability, affordability and environmental protection. This poses uncertainty for the Company in respect of the need for importing nuclear power and developing infrastructures to meet the new fuel mix decision or developing other alternative low carbon generation facilities, all of which require adequate lead time for planning and construction.

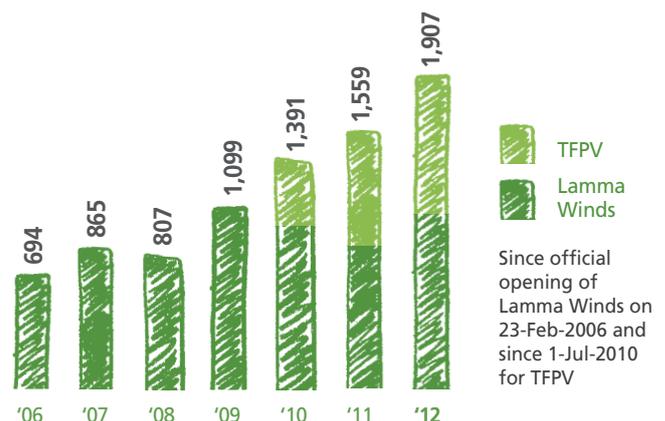
### ACTIONS AND ACHIEVEMENTS

#### Harnessing More Renewable Energy

Power Assets is proud to be pioneering the development and utilisation of renewable energy (RE) in Hong Kong. We have developed and are now operating the first commercial scale grid-connected wind turbine, namely Lamma Winds, and the largest thin film photovoltaic (TFPV) solar power system in the city. We have also expanded the capacity of this solar power system from 550 kW initially to nearly 1 MW.



#### Renewable Energy Generation (MWh)



We are looking at further ways of using RE. Significant progress continues to be made at our planned 100 MW offshore wind farm located off Lamma Island, which is now scheduled for completion by the end of 2017. It is expected to generate about 175 GWh of energy annually, enough for 50,000 families. This will offset 150,000 tonnes of CO<sub>2</sub> emission and the burning of 62,000 tonnes of coal. To prepare for this, we commissioned a wind monitoring station in 2012 at the proposed offshore wind farm site to collect meteorological and oceanographic data.



It is the first offshore wind farm project in Asia to adopt LiDAR (Light Detection and Ranging) technology on a wind monitoring station. The monitoring station is powered by three small wind turbines and 14 solar PV panels.

The LiDAR technology reduced the required height of the wind monitoring station and in turn reduced the construction cost. Since March 2012, promising wind data has been collected, indicating that the proposed site has adequate wind resources for the development to proceed.

In line with our vision to excel in the power business in global markets, Power Assets is committed to leveraging its expertise and capabilities in RE where feasible. During the year, we expanded into the RE power transmission business in Australia by investing in a power transmission link that will connect a 130 MW wind farm in Victoria to the power grid. The Australian Government is committed to ensuring that the equivalent of at least 20% of Australia's electricity comes from renewable sources by 2020. Looking ahead, we shall continue to seek similar opportunities in global markets.

### Increasing Use of High Quality Fuels

Recognising the risks posed by negative changes to air quality and climate, HK Electric is adopting an environmental policy which ensures we generate electricity efficiently. We use natural gas and cleaner coal to reduce emissions.

In 2012, we maintained a significant portion of natural gas in our fuel mix, with

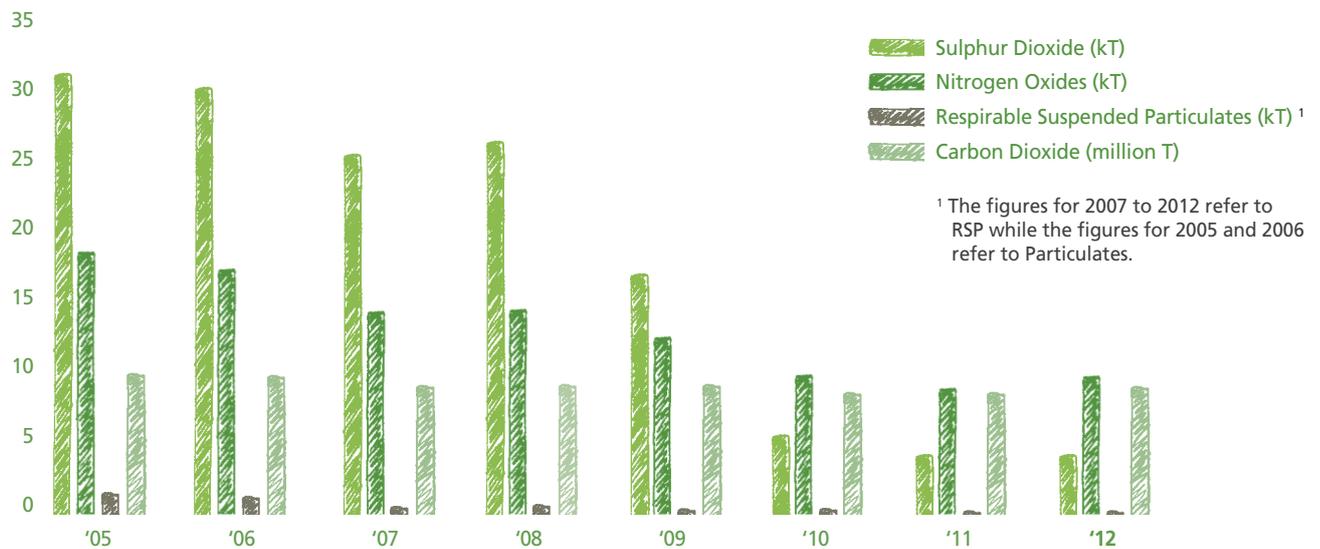
**over 30%**  
of our power output derived from natural gas.



We also successfully modified five main coal-fired generation units at our Lamma Power Station to handle a wider range of coal types including low calorific value coal with low sulphur content. Consequently, more low sulphur coal was procured and used in 2012 to ensure minimal emissions. Besides the lower sulphur content, the overall ash content from the coal we purchased in 2012 was also reduced, leading to a lower overall particulate emission. Moreover, subsequent to the completion of the modification of the six older coal-fired units to allow the use of ultra low sulphur diesel (ULSD), we utilised ULSD as start-up fuel for all coal-fired units in 2012, which helps reduce SO<sub>2</sub> emission further.

With the continual good performance of the emission reduction facilities and our efforts to harness more RE, source more low-sulphur and low-ash coal, and secure natural gas for power generation, the SO<sub>2</sub> and RSP emissions in 2012 were further reduced by 2% and 9% respectively as compared with 2011. NO<sub>x</sub> emission of the same period rose by 10% and CO<sub>2</sub> emission by 4% due to increased sales and exceptional energy transfer to CLP after a typhoon in July 2012. Nevertheless, the air emissions of our Lamma Power Station in 2012 were below the emission allowances set by the HKSAR Government. HK Electric will continue to fully support the Government's proposed new Air Quality Objectives and the associated initiatives for further improving Hong Kong's air quality.

## Emissions from Lamma Power Station



### Enhancing Operational Efficiency

Enhancing the efficiency of our power plants also helps reduce emissions. During the year, HK Electric carried out a much needed upgrade of the Unit L4 coal-fired unit at the Lamma Power Station. The Unit has been operating for more than 20 years and replacing the outdated High Pressure and Intermediate Pressure Turbine leads to a significant improvement in efficiency. Despite the complexity of this project, it was accomplished within four months. Since the upgrade, the efficiency of the turbine has improved by 1.8%.

On the transmission front, we enhanced the computer control for our network to facilitate automatic switching of 11 kV capacitor banks at all electrical zone substations, so as to have better control on the power factor and hence reduce the energy loss during electricity transmission.

### Managing our Carbon Footprint

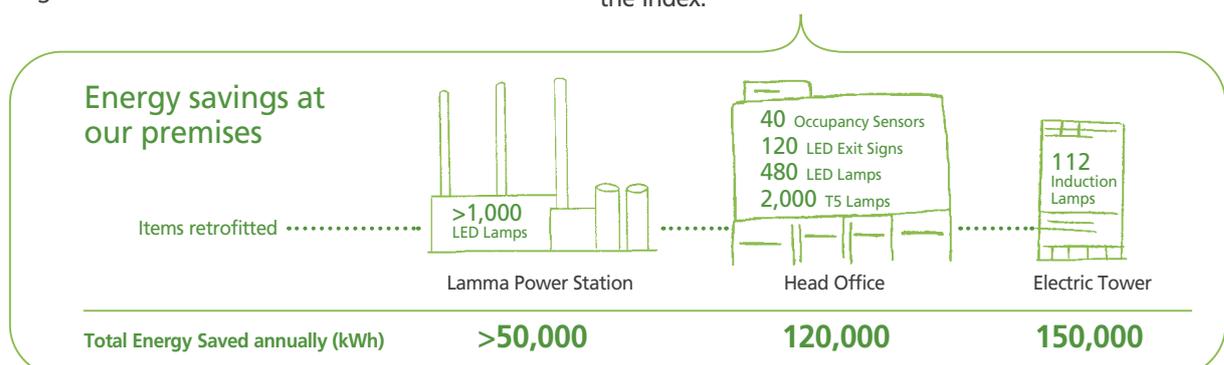
Power Assets is committed to promoting a low carbon economy and improving air quality by reducing our own carbon footprint, while partnering with the community to reduce emissions. We conduct regular carbon audits at specific premises and implement a wide range of energy-saving measures. We received three Carbon "Less" Certificates under the Hong Kong Award for Environmental Excellence Awards

Scheme for reducing the carbon footprint of our Head Office and that of the buildings at our Lamma Power Station.

We share the increasing concern of building energy efficiency and have set up an energy management system to enhance the efficiency of the buildings at our Lamma Power Station, with energy audits conducted for three buildings in 2012. In support of the Manifesto on Energy Efficiency in Buildings organised by the World Business Council for Sustainable Development, we will conduct energy audits for more of our premises in the coming years.

We have taken numerous measures to reduce our own energy consumption and hence carbon footprint. In 2012, we were awarded two Energywi\$e Labels under the Hong Kong Award for Environmental Excellence Awards Scheme.

We also place great emphasis on the transparency and credibility of our carbon performance disclosure. We commissioned an independent accreditation body to verify the greenhouse gas assertions of our Hong Kong business following the ISO 14064 standard. A significant achievement during the year was our inclusion in the Global 500 Carbon Disclosure Leadership Index of the Carbon Disclosure Project. Power Assets is the first Hong Kong company included in the Index.



### Expanding Electric Vehicle Fleet

HK Electric continues to introduce electric vehicles (EVs) into its corporate fleet so as to reduce roadside emissions. During 2012, seven additional EVs were added to the corporate fleet taking the total number to 45, equivalent to over 15% of our full fleet.

One goods van was installed with a solar air-conditioning system to provide clean energy when idling. We also aim to progressively phase out diesel-engine vehicles in favour of EVs at the Lamma Power Station. In the interim, we continue to use bio-diesel in some of our diesel-engine vehicles.

We further support the Government's promotion of EV usage to improve roadside air quality. We built more EV quick charging stations in public car parks across Hong Kong Island, bringing the total numbers of HK Electric's quick and standard charging stations to 10. These stations are free for use by the public till the end of 2013. Similarly, we extended our EV leasing scheme to 2013 in order to let our customers continue to experience eco-driving by renting our EVs.

Addition of EVs to the corporate fleet in 2012

2 electric mini goods vans



3 electric mini pickup trucks



2 iMiEV electric cars



Usage of EVs (mileage base) %  
EV Fleet mileage (km)

12.8%

'12

285,409



'11

130,399



'10

40,266

1.7%



Financial Secretary of the HKSAR Government, Mr. John Tsang, demonstrates how to charge an EV at one of our charging stations.

HK Electric also supports the HKSAR Government in further developing Hong Kong's mass transportation systems so as to provide a low carbon form of transport. To this, we will continue to provide substantial technical support and build the necessary electricity infrastructure for the MTR's West Island and South Island Lines.

### Preparing for the Future

With some coal-fired units nearing the end of their asset life, HK Electric has been planning to construct additional gas-fired combined cycle (CCGT) units, subject to discussions with the HKSAR Government. Four major CCGT suppliers were approached in 2012 with a view to assessing the practicality of achieving the tightened emission standards newly proposed by the HKSAR Government. This was also supplemented with a consultancy study on the installation of Selective Catalytic Reduction Systems to the CCGT units for reducing NOx emission.

HK Electric sponsors the first "Innovative Eco-Vehicle Design Competition" organised by The Federation of Hong Kong Electrical & Mechanical Industries Trade Unions.



## Environmental Conservation

### STAKEHOLDER EXPECTATIONS

Environmental issues pose concern for the global community as we face a future where resource and environmental conservation are set to become even more significant to everyday life.

We acknowledge the high expectations from stakeholders on corporations like us to adopt a thoroughly sustainable approach utilising broad measures that range from using resources and handling waste in an environmentally responsible manner to protecting the ecological environment.

### RISKS AND CHALLENGES

#### Use of Resources and Production of Waste

By its very nature, the processes of power generation, transmission and distribution consume natural resources such as fuels and water. They also produce waste such as wastewater and used oils, and by-products such as ash and gypsum. The challenges of both minimising resource usage and safe disposal of the waste and by-products without causing harm to the environment pose an ever more important challenge for the energy sector.

#### Possible Impacts on Biodiversity

Without careful feasibility studies and planning, energy infrastructure projects can have a potentially detrimental impact on biodiversity. The opportunities presented by renewable energy may seem to be an antidote to such concerns as global warming and environmental degradation. Yet even these new forms of energy sources can pose a threat to biodiversity if they are implemented without careful assessment and due diligence.

### ACTIONS AND ACHIEVEMENTS

#### Embracing Environmental Management

As part of our mission, one of the fundamental undertakings of Power Assets in all our activities is to care for the environment. By drawing up and adhering to a strict policy on our environmental performance, we are further improving our capabilities in this area and acting in a responsible manner in respect of the best practice for environmental conservation.

To continually improve on environmental performance and minimise the impact of our operations on the environment, we continued to implement a 4R policy, namely to **R**educe, **R**euse, **R**ecover and **R**ecycle materials and resources. Our efforts were recognised with two Wastewi\$e Labels under

the Hong Kong Award for Environmental Excellence Awards Scheme.

Housekeeping measures were taken in our office buildings to reduce electricity and water consumption. Our individual business units also continued their paper saving practices. In 2012, we achieved a 3% reduction in both town water and electricity consumption in our main office buildings and an 8% reduction in paper consumption as compared with 2011. We also joined the Environmental Protection Department's programme on "Source Separation of Commercial and Industrial Waste". The Programme aims to encourage the setting up of an effective mechanism to facilitate waste separation and recycling.



With the successful experience with the two food waste eliminators at Lamma Power Station, we install two more at our office buildings with catering facilities.

We consider the environmental performance of our buildings paramount and we strive to ensure they are energy efficient and not wasteful, in turn limiting their greenhouse gas emissions. During the year, the design and construction of our Lamma East Store Building was granted a platinum award by the Business Environment Council in accordance with the Building Environmental Assessment Method (BEAM) for New Buildings.

At our Lamma Power Station, we continued to collect and recycle wastewater and rainwater in 2012, which amounted to a total of 120,200 m<sup>3</sup> and was equivalent to 4.9% of the Station's total water consumption. Furthermore, 100% of our used lube oil was sent to a competent agent for recycling, while all gypsum and most of the ash produced were sold for industrial use. Our recycling programme at Lamma Power Station continued with various kinds of materials, including plastic wares, waste paper products, used toners, printer cartridges, compact fluorescent lamps and scrap metals.

We are pleased to see an increase in the environmental awareness of our employees at Lamma Power Station, as evidenced in the overall score of 61 recorded in the latest Environmental Climate Index Survey conducted for our employees in 2012, over 58 obtained in 2010.

To help save paper and lower carbon emission, we again launched another e-bill promotion campaign in April 2012 with a one-off incentive of \$30. As in the previous year, customers could opt for donating the \$30 incentive to one of the four designated green groups. As a result of the campaign, we achieved another 6,639 new e-bill subscriptions. We intend to launch a new round of e-bill promotions in 2013 to encourage at least a further 5,000 customers to switch to e-bills.

### Preserving Biodiversity

To achieve sustainable development and to protect the environment, we engaged a consultant to undertake a biodiversity study for our Lamma Power Station in 2012. The study aimed to identify species around the power station and to develop a conservation plan for them. Relevant action plans were devised based on the consultant's findings and recommendations.



Lamma Power Station is home to numerous bird species.

More than 100 eco-leaders are trained up for the five new eco-heritage routes.

As we move forward with our offshore wind farm project near Lamma Island, we are making every effort to ensure its impact on biodiversity will be minimal. An example is the adoption of a Light Detection and Ranging (LiDAR) system in the wind monitoring station instead of using a conventional wind monitoring mast. This has substantially reduced the overall height, foundation depth of the station as well as its marine footprint, thus minimising disturbance to the marine ecology. We have an ongoing dialogue with stakeholders through the Stakeholder Liaison Group and the Fisheries Review & Consultation Committee specifically established for the project. The objective of the latter is to review in consultation with the fishery sector the feasibility of opening up the wind farm for fishing activities and to explore measures such as artificial reefs to enhance fishery resources within the wind farm waters.

### Eco-campaigns

Our two eco-projects, Green Hong Kong Green (GHKG) and Green Lamma Green II, aim to promote the eco-heritage of Hong Kong Island and Lamma Island and to enhance public awareness of preserving such valuable resources. Co-organised with the Conservancy Association, the GHKG programme entered its final year in 2012, with three new eco-heritage routes developed in Lung Fu Shan, Tai Tam and Aberdeen Country Parks, and training of eco-leaders completed. Refresher courses and 18 practice tours were organised for eco-leaders and 312 participants joined these tours to learn about the ecology, heritage and history of Hong Kong Island.

Under the Green Lamma Green II project, a total of 38 eco-tours were held along the three existing routes on Lamma Island for around 559 participants in 2012. Two new eco-heritage routes, including a day route and a night tour, were developed and training of eco-leaders completed.



## Supporting Community Green Initiatives

Power Assets actively fosters a culture of volunteering and takes the lead to encourage our employees to support meaningful green causes.

About 50 employees rushed to the rescue when the Company responded to an urgent call for assistance in cleaning up two beaches at Lamma Island after 150 tonnes of plastic pellets were washed up in the aftermath of Typhoon Vicente in July.

Our volunteers also took part in many other green initiatives during the year including the “No Hill Fire in Lamma” campaign during Ching Ming and Chung Yeung festivals by the Conservancy Association, “Clean Up the World in HK” by Green Power; “Tree Planting Challenge” by Friends of the Earth Hong Kong and mikania removal at the Mai Po Reserve by WWF.

The Company also continued to support local green groups in their efforts to protect the environment. We responded to WWF’s call for action on climate change and participated in “Earth Hour 2012” by switching off the external and decorative lighting at nine of our buildings for one hour, and provided system loading data for WWF to assess the impact of the campaign.

For the third consecutive year, we supported the “Take a ‘Brake’ Low Carbon Action – Corporate Green Driving Award Scheme”, initiated by Friends of the Earth Hong Kong to promote car fuel efficiency. We improved fuel efficiency by over 7% and reduced fuel consumption by more than 9% during the action period.



Our engineers tailor-make simple but practical tools to speed up the plastic pellets cleaning process.

## Supply Reliability and Sustainability

### STAKEHOLDER EXPECTATIONS

Excellent electricity supply reliability helps support Hong Kong’s economic development and sustain its position as one of the world’s key financial centres. It also serves as the crucial backbone for most homes and businesses. Supply reliability can however be easily taken for granted and any disruption may frustrate our customers.

Public expectations for sustainable and cleaner electricity extend to all aspects of the power supply process, most of which have been addressed in the *Air Quality and Climate Change* and *Environmental Conservation* sections of this chapter. We also recognise that the CSR performance of our business partners has implications on the comprehensive approach to sustainability taken in our power supply. This presents an opportunity for us to set an example and ensure that all stakeholders in the energy supply chain adopt the same philosophy on CSR and environmental issues.

### RISKS AND CHALLENGES

#### Supply Reliability

Delivering a safe and reliable supply of electricity in response to the demands of a modern metropolis such as Hong Kong is an increasingly complex and challenging undertaking. The congested infrastructure that typifies our compact cityscape poses inherent challenges for power utilities. The existing power generation, transmission and distribution infrastructure in Hong Kong must be constantly maintained and upgraded, while minimising the disruption that may cause to the community and customers.

Furthermore, global climate change is causing more severe weather. Typhoons and Super Typhoons pose an increasingly significant threat to supply reliability and safety.

#### Securing Quality Fuel

Fuel cost amounts to a significant portion of our running cost, and fuel quality also affects our generation efficiency and environmental performance. It is therefore critical for us to secure a supply of quality fuel at a reasonable price.

#### CSR Competence of Business Partners

Power Assets adopts high standards to ensure we behave responsibly in respect of our environmental and CSR commitments, and it is important to ensure these commitments are adhered to throughout our supply chain. To generate and supply electricity, we rely on a range of suppliers for raw materials and services. The key challenge

for our supply chain is to strike a balance between satisfying our customers in a cost-effective manner, while ensuring our needs for materials and services are met in a sustainable way.

#### ACTIONS AND ACHIEVEMENTS

### Continuous Improvement to Ensure Supply

One of the Company's core missions is to deliver excellent supply reliability. We have delivered on this pledge unwaveringly for decades and have superior systems in place to ensure our high standards will continue.



In 2012, HK Electric continued this excellent track record, achieving a high supply reliability rating of over 99.999% for 16 consecutive years, with our customers experiencing on average less than one minute per year of unplanned power interruption.

Our mechanism to deliver this high level of reliability includes a PAS 55-1 asset management system for our apparatus and an ISO 9001 quality management system for core business processes. To enhance our network reliability, we commissioned five additional 132 kV ring main units and five additional 132 kV circuits at various locations across Hong Kong Island in 2012. Our power networks of 11 kV or above also have back-up cables to cater for contingency situations.

We are gradually phasing out the use of overhead lines for improving network reliability and minimising visual impact. We utilise primarily 275 kV and 132 kV underground and submarine cables in our transmission network, and now only a few 132 kV overhead lines remain in use. Because of our cable network's physical robustness against adverse weather, we were able to maintain a highly reliable power supply all year round. In 2012, a new 275 kV circuit was added inside the existing 5.7 km Nam Fung – Parker Cable Tunnel.

We conduct regular network reliability and operational reviews to further enhance supply reliability. We deployed advanced cable diagnostic techniques to identify and replace weak components, enabling us to avert potential cable faults that might adversely affect supply. As a result, the number of 11 kV cable faults (other than those damaged by third parties) dropped to an all time low of 39 cases in 2012. Another example of this forward thinking approach was the enhancement of a sophisticated computer programme to reduce the supply restoration time following certain types of fault. Consequently, our engineers managed to restore

supply to customers within one minute for eleven 11 kV fault cases, thus reducing the supply interruption time. We have also enhanced our gas insulated switchgear systems which are now under the watch of an advanced online partial discharge monitoring system.



Our System Control Centre monitors our network round the clock and is able to restore supply within minutes after fault.

In early 2012, we also improved the reliability of the two gas-fired units at our Lamma Power Station by segregating the original single gas supply chain for the two units into two separate chains, one for each unit, preventing them from tripping at the same time.

### Securing Quality Fuel

We continued to take steps to safeguard our coal supply through close monitoring of the supply chain and diversification of procurement. With the completion of the coal mills enhancement programme at our Lamma Power Station in 2012, a total of five coal-fired units can now be fuelled by a wider range of coal types, including low sulphur coal. The Company now sources coal from Indonesia, Australia and Russia, while natural gas is mainly sourced from Australia and Qatar. During the year, the coal market softened and enabled us to secure reliable and quality coal at lower price levels.

### CSR Standards in Supply Chain

Power Assets encourages its suppliers to behave responsibly and to report their CSR performance. We have a Code of Practice for Suppliers in place to define ethical, human and labour rights, health and safety, and environment protection standards for suppliers, contractors, and consultants. We expect our business partners in our supply chain to follow the Code of Practice so far as it is practicable. Our supplier of the thin film photovoltaic panels used in the solar power system, for instance, verified its greenhouse gas emissions inventory at organisational level and acquired the ISO 14064 certification.

## Demand Side Management

### STAKEHOLDER EXPECTATIONS

As the climate change debate continues to capture attention among our population, the HKSAR Government and local NGOs have higher expectation of power companies to promote energy efficiency.

Following the HKSAR Government's consultation on measures needed to combat climate change, we welcomed the public's call for power companies to provide more transparent information about electricity consumption patterns on their bills.

In line with better education and greater awareness, consumers are also seeking more interaction with and advice from power companies on steps they can take to lower their carbon footprints and save energy.

### RISKS AND CHALLENGES

#### Running Successful Programmes

To make an education programme successful requires adequate resources as well as creative and innovative ideas to encourage wider public participation. It is also important to foster a culture of sharing in order to spread the green messages, in particular to the younger generation.

#### Possible Impact on Our Local Business

The increasing trend towards energy efficiency and conservation may have impact on our local power business. Yet we are firmly committed to supporting this green initiative and we will address this challenge by seeking alternative business development opportunities, which are described in greater details in the *Business Development* section of this chapter.

### ACTIONS AND ACHIEVEMENTS

#### Commitment from the Top

We believe sustainability does not just concern minimising the negatives, but is also about realising the positives. We do not behave merely as a supplier to our customers and partners. Where feasible we work with organisations and individuals in partnership to achieve sustainable solutions and to help them benefit from our knowledge and best practices.

Our commitment to supporting and engaging our stakeholders is best reflected in the work of our CSR Committee, which is chaired by the Group Managing

Director. Such commitment from senior management ensures a sufficient allocation of human and financial resources to achieve our objectives.

#### Free Energy Audits

To raise awareness of best practices in energy consumption, we provide free energy audit services to help our customers identify energy-saving opportunities at their business premises. Together with other initiatives to help small and medium enterprises (SME) optimise their business start-up, we also help them in selecting the right tariff type and enhancing the energy efficiency of their operations by providing tariff advisory services and energy audits. Once a new SME business has been running for three months, we will provide load profile advisory services on request, facilitating better use of energy to drive business success.



In 2012, we are named "The Best SME's Partner" by the Hong Kong General Chamber of Small and Medium Business.



Over 50 energy audits were carried out in 2012. To supplement this activity, we continued the provision of our HK\$12.5 million per annum loan fund for non-domestic customers to implement energy saving initiatives identified in energy audits. Similarly, we allocated about HK\$2.5 million a year to an education fund for promoting energy efficiency.

### Low Carbon Awareness in Office

We helped WWF to conduct verification for the participants of its Low-Carbon Office Operation Programme (LOOP) Labelling Scheme in 2012. LOOP has been established to enable Hong Kong companies and organisations to reduce their greenhouse gas emissions generated from office operations by adopting managerial and technological best practices and changing staff behaviour in respect of energy efficiency.

### Saving Energy by Going Electric

HK Electric encourages customers to switch from gas appliances to electrical appliances as this helps save energy, as well as immediately improves indoor environments and reduces waste heat and gas to the vicinity. We continued to host courtesy visits to our Electric Commercial Kitchen Centre and Electric Domestic Kitchen Centre and offer free professional consultation for restaurant owners, elderly centre owners, NGOs, students, property developers, and electrical and mechanical services consultants.

HK Electric also assists the hotel industry in adopting eco-water heating systems. For example, the Holiday Inn Express HK SOHO, which opened in 2012, generates hot water using four electric heat pumps that extract waste heat from the building air-conditioning system.

### Handy Consumption Information

Through various initiatives for different types of customers, the Company helped them familiarise with their electricity usage patterns. Data such as electricity consumption tracking, monthly per capita electricity consumption, and carbon dioxide (CO<sub>2</sub>) emissions per unit of electricity consumed, are now included in bills for domestic customers.

We also help business customers to better understand their electricity consumption patterns and to devise their energy efficiency programmes. In 2012, load profile enquiry services were provided to 75 commercial customers with smart meters installed as part of our energy advisory services.

The “Electricity@Home” and “Electricity@Office” facilities on HK Electric’s websites allow our domestic and commercial customers to conduct virtual energy surveys for their homes and offices. The functions also offer useful information about energy efficiency and conservation, power quality and tariffs, safety tips and a guide to purchasing electrical appliances.

### Carbon-Smart Buildings

The Climate Change Business Forum, an initiative of the Business Environment Council in Hong Kong, sets out to find optimal solutions for retrofitting the commercial building stock in Hong Kong to improve energy efficiency. Power Assets participated in the Carbon-Smart Buildings project offering technical support, resulting in a very practical and useful guide for tenants and owners of commercial properties.

### More Sharing under Clean Energy Fund

The HK Electric Clean Energy Fund aims to foster environmental education in Hong Kong by promoting better understanding of renewable energy (RE). Since its establishment in 2006, the Fund has sponsored 116 renewable energy projects. With the Fund entering its seventh year, applications are classified into two categories with project sponsorship of up to \$15,000 and \$100,000, depending on the scale and complexity of the application. To encourage more students to engage in the projects and



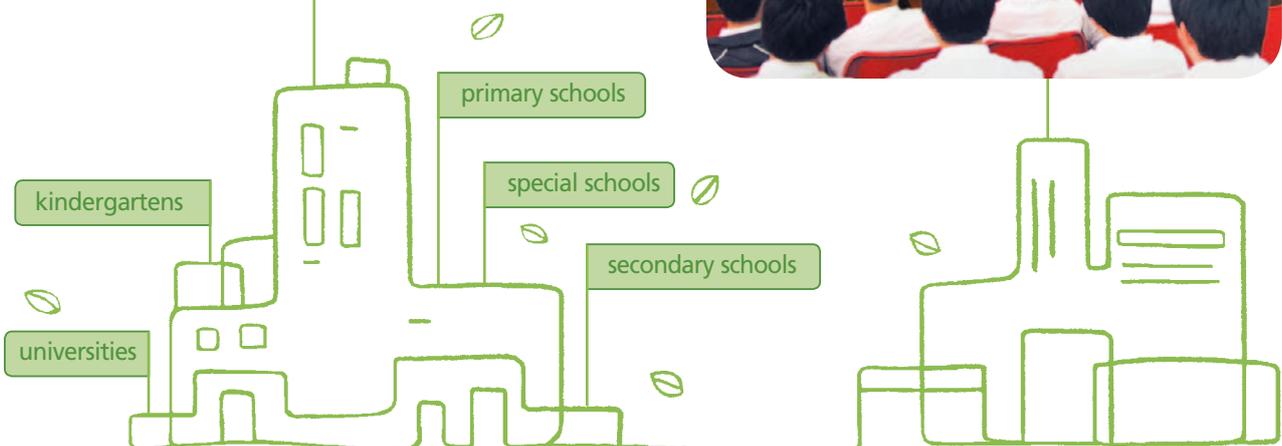
Customers can now understand more about their electricity usage patterns with the enhanced bill.

provide them with Other Learning Experiences (OLE – a key feature of the senior secondary curriculum in Hong Kong) in environmental conservation, we included “students’ participation” as one of our criteria for the Fund’s application in 2012.

Based on the adjudicators’ assessment, 30 applications including 12 kindergartens, five primary schools, nine secondary schools, three special schools and one university, were recommended for sponsorship. Besides projects promoting RE and low carbon activities, previous awardees were also encouraged to apply for funding to enhance their existing RE installations.

Under the Fund’s “Clean Energy • iShare” networking platform, which promotes better understanding of RE and low carbon messages, we collaborated with the Hong Kong Institution of Engineers and organised four school talks and one field trip. Over 500 students attended the activities. The Fund also sponsored The University of Hong Kong (one of the successful applicants of the Fund in 2011/12) to develop and build a working prototype of a mini hydro power plant in rural Thailand. We also organised a visit for secondary students interested in water turbine models to the University, where the project team shared their knowledge and experience. Schools can also share interests and ideas through the Fund’s Facebook fans page.

A total of 101 applications were received for our Clean Energy Fund in 2012, a record number since the scheme started in 2006.



Green Education in Schools

## Be Green, Be Happy – Smart Power Campaign 2012

During the year, we again launched our annual Smart Power Campaign to encourage the public to adopt a low carbon lifestyle and realise the benefits of green living. The 2012 campaign was kicked off at the “Low Carbon Bazaar” (see the case story following this section), with the theme “Be Green, Be Happy”. A record of over 90,000 participants took part in various activities organised under the Campaign.

A “Happy Green School” label programme was launched in 2012, and 115 secondary, primary and special schools participated. More than 18,000 students from these schools participated in various low carbon activities, such as “bring

your water bottle day” or “bring your handkerchief day”. Four primary and three secondary schools were recognised for their outstanding performance in organising such activities. Students also benefited by participating in the OLE activities, including school talks and visits to our Smart Power Centre. In 2012, we organised 19 guided tours to our Smart Power Centre for various stakeholders including academia, schools, professional institutions, hotel associations and hospitals to promote energy efficiency and electrical safety among the community.

The “Be Green, Be Happy” essay writing competition attracted more than 7,500 submissions and 55,000 votes in the public voting.

Our popular “HK Electric Low Carbon App” was upgraded in December 2012 to provide more features, including more downloadable “low carbon recipes”, and a “Be Green, Be Happy” section to share stories and tips on green living. The App also provides 25-month electricity consumption record enabling customers to monitor electricity usage.

## Advocacy Through Our Employees and Their Families

More than 1,000 employees took part in the corporate green campaign organised in support of the 40<sup>th</sup> anniversary of World Environment Day. The campaign, held between 21<sup>st</sup> May and 20<sup>th</sup> June, appealed to colleagues to go green around the four basic necessities of life: apparel, diet, living and transport through the selection from a list of 17 Low Carbon Pledges. A reduction of at least 25 tonnes of CO<sub>2</sub> emission was estimated during the month-long event, equivalent to the CO<sub>2</sub> absorbed by about 1,000 trees in a year.



Through roving exhibitions staged at shopping centres, the general public gain knowledge in the smart use of electricity.



New features in the HK Electric Low Carbon App include “eco-quality home” to promote low carbon electrical appliances.

In support of the World Environment Day, used-clothing collection boxes are placed at various premises of the Company.



# LOW CARBON DREAMS COME TRUE



Educating the younger generation on how to pursue a sustainable environment has always been a commitment of the Company. The “Low Carbon Bazaar” organised in February 2012 as part of our Smart Power Campaign was a case in point of encouraging students to move towards a low carbon future.

“Best Marketing Award” winner CMA Choi Cheung Kok Secondary School was one of the 21 schools running green businesses, selling DIY low carbon products at the Bazaar. Designing a low carbon and fashionable LED lamp using recycled ring-pulls from cans, the school team learned more about energy and recycling through handcrafting their dream products for sale.

Team member Kwok Hoi-yiu enjoyed participating in the activity. “Creating a product that is low in carbon emission required a lot of research, trial and error.

HK Electric’s programme was a valuable lesson teaching me how to apply knowledge and creativity to help protect the environment,” he said.

Each participating team received sage advice from some of HK Electric’s young engineers and a subsidy of \$3,000 to fund its business. The activity provided a good opportunity for students to learn through hands-on experience.

Some 3,000 members of the public attended the Bazaar where over 50 types of DIY products, ranging from shopping bags made from old clothing to mobile phone chains made out of computer keyboards, were created for sale at the 25 booths. With a matching donation by the Company to the sales proceeds, the Bazaar raised around \$90,000 for two local green groups, WWF-Hong Kong and Friends of the Earth (HK).

## Green Education around the World



In Australia, Power Assets’ electricity distribution associates, CitiPower and Powercor also engaged schools and students in conservation activities. The CitiPower Powercor Junior Landcare “Powerful Partnerships” Grants Programme encourages environmental partnerships between schools and Landcare groups across the two businesses’ distribution areas of inner Melbourne and central and western Victoria. In 2012, the programme provided grants, enabling 10 schools to attend “Plant Out” days, where students participated in tree planting on a local farm and enjoyed educational talks on the benefits of trees to the farming landscape.

# Upholding Health and Safety



## ISSUES:

**Workplace Health and Safety**

**Community and Customer Safety**

Health and safety is a fundamental imperative for Power Assets. We are committed to protecting the health and safety of our employees, customers, contractors and the public by conducting our business in a safe and socially responsible manner.

Our policy is to excel in occupational health and safety performance and achieve an accident-free operation. To accomplish this, we comply fully with all applicable laws and regulations and strive to integrate health and safety considerations into all aspects of our business activities. We signed the Occupational Safety Charter in 1997 and the Workplace Hygiene Charter in 2003.

Our health and safety organisation structure extends from the top management down to our frontline staff and contractors. We have adopted safety management systems conforming to OHSAS 18001 for all our major operations to continually reduce risks and improve our safety performance. Our ISO 9001 quality management systems and PAS 55 assets management systems also help ensure the safe operation of our facilities.

## Workplace Health and Safety

### STAKEHOLDER EXPECTATIONS

Employees expect to work in an environment where risks to their health and safety are properly controlled to prevent accidents. Any responsible organisation has a duty to ensure that any individual who may be affected by the organisation's activities and business practices should remain safe at all times.

### RISKS AND CHALLENGES

#### The Impact of Poor Practices

Health and safety are instrumental to successful business performance. Poor workplace practices that are hazardous to individuals are also likely to have a detrimental impact on their families, the organisation and the community at large.

#### Human Errors

Safety in the workplace is the responsibility of both the organisation and individual employees. With behavioural patterns difficult to control, human errors may occur, and to ensure individuals remain vigilant for their own well being and that of those around them all the time is fundamental to avoiding accidents.

#### Unknown Risks

An organisation may not be able to respond quickly and effectively to unknown health and safety risks. Ensuring adequate awareness and preparedness for both predictable and less predictable risks is an inherent challenge to an organisation.

### ACTIONS AND ACHIEVEMENTS

#### Safe and Healthy Workplace

Power Assets is committed to providing a safe and healthy workplace for its employees. Various measures and initiatives are in place to ensure we maintain a high standard. For example, our safety management systems (SMS) enable us to regularly review and improve our safety performance and minimise human errors.

Safety audits and inspections including SMS audits are conducted on relevant business units from time to time to ensure compliance. Our safety performance in 2012 can be found in the *Summary of Statistics* section of the *In Pursuit of Excellence* chapter.

We hold regular dialogues with industry partners and peers on safety and related matters. During the year, Joint Utilities Safety & Occupational Health Policy Group was under the rotating chairmanship of HK Electric. In addition to regular meetings held with other public utilities, the Company maintained close dialogues with the Labour Department and Occupational Safety and Health Council (OSHC) to formulate plans and practices to further promote occupational safety and health (OSH) standard in the utility sector and safety professionals. We were also invited to share and discuss the direction and the strategy for developing CSR in OSH in the "Workshop and Seminar on Corporate Social Responsibility in OSH" organised by the OSHC in March 2012.

HK Electric sweeps nine awards at the 11<sup>th</sup> Hong Kong Occupational Safety & Health Award.



We strongly advocate healthy behaviours in the workplace. For instance, we encourage our employees to participate in the daily “physical exercise at work” programme. During the year, our Influenza Pandemic Prevention Committee continued to closely monitor the prevailing conditions of Human Swine Influenza and Avian Influenza and reviewed the Company’s influenza pandemic response level, precautionary measures and contingency plan. Since prevention is better than cure, we have an annual subsidy plan on flu vaccinations for our employees and their family members.

We strive to ensure the air quality inside our premises is maintained at a high standard, thereby providing a comfortable and healthy working environment for our staff. During the year, we made efforts to improve the indoor air quality (IAQ) of our office buildings and were recognised with two “Excellent Class” and one “Good Class” IAQ certificates.

For outdoor working environment, we follow the Clean Air Charter to identify and take precautionary measures on days when air pollution is high in Hong Kong. Air Pollution Index (API) information is disseminated via our corporate intranet and email alerts are sent to our staff when high API levels are reached. The Company is also establishing a new set of guidelines for staff when working outdoor during high API levels.

In 2012, work sites at our Lamma Power Station and along our electricity network were designated International Safe Workplaces under the World Health Organisation’s Safe

Community Programme, which recognises organisations that apply best practices in proven injury prevention. Details on other initiatives that we have taken to ensure the well being of our employees can be found in the *Employee Relations* section of this chapter.

### Enhancing Awareness and Knowledge

We have implemented measures to ensure that all employees familiarise themselves with and follow the guidance outlined in our safety rules and procedures. We aspire to achieve an ingrained safety culture through regular company-wide activities which keep our employees informed and involved. These range from daily briefings and regular meetings with employees on health and safety issues, to training courses and other activities such as the inter-company and regional safety quiz. We also launched the “EHS Behaviour Enhancement at Work Campaign” in 2012. A Work Safe Behaviour Programme was implemented to eliminate risky behaviour.

Gauging feedback on occupational safety and health issues from our employees is important. During the year, we conducted Safety Climate Index Surveys among employees of our major business units. Benchmarking the results against those from the previous surveys in 2009, there are increases in both the response rates and overall scores, which indicate a better safety culture among our employees. Areas of inadequacy were also identified for further improvement.

### Preparing for the Worst

It is essential to identify potential risks in advance and develop appropriate procedures for mitigating them and ensuring the safety of our workforce. During the year, we carried out a range of drills and exercises to test our response to various situations. These included emergency evacuation, chemical spillage, marine rescue, confined space rescue, heat stroke and first aid drills.



We simulate a chemical spillage incident to test our response.



We join hands with the Fire Services Department during a rescue drill.

## SHE Experience Sharing

Power Assets is a strong advocate of sharing and interacting with our business partners to enhance awareness of health and safety matters. This spirit of mutual accord and the joint efforts of our staff and contractors pay off with a high safety standard at work.

During the year, we hosted an Environment, Quality, Health and Safety (EQHS) Week at our Lamma Power Station. More than 650 employees and contractors of the Company participated in a range of activities including health talks, presentations, safety and environmental training, an EHS quiz, and safety and environmental climate index surveys.

We also held a Safety, Health and Environment (SHE) Forum – an annual experience sharing event with our business partners – for over 200 participants. Distinguished guests from the HKSAR Government and the business community shared their views on safety and environmental issues.



The annual Safety, Health & Environment Day is held at our Lamma Power Station to promote SHE awareness.

Besides, a SHE Day was organised at our Lamma Power Station at the end of the year to promote SHE culture and boost working spirits. Other SHE culture initiatives in 2012 included selection of "SHE Stars" from our contractors and the presentation of SHE Ambassador Walk Souvenirs to recognise their good SHE performance, as well as organising SHE Circle Meetings to promote interaction with contractors. We also launched a SHE Incentive Bonus Scheme for a construction contract to promote safety culture and enhance environmental awareness at construction sites.

Our Transmission & Distribution Division conducted regular ambassador visits to our trenching and erection contractors in their depots to promote SHE practices and gather first hand feedback from their front line employees with regards to SHE initiatives.

## Community and Customer Safety

### STAKEHOLDER EXPECTATIONS

The power sector plays a pivotal role in sustaining the welfare of communities and economies. The risks of any interruption to vital power for the community must be factored into the operating plans of utilities. On the other hand, stakeholders expect to be able to use electricity safely and not to be affected by any operational issues that may occur at power plants or related facilities.

### RISKS AND CHALLENGES

#### Interrupted Supply

Any interruptions to the supply of electricity can have potentially serious knock-on effects to the community, particularly where they may affect essential facilities and operating systems such as hospitals, road traffic control operations, communications infrastructure and building lift systems.

#### Detrimental Incidents

Due to the limited space and dense population in Hong Kong, some of the utility infrastructures inevitably need to be located in proximity to the community. All utilities have to make every effort to avoid detrimental incidents associated with their infrastructures and keep the risk for the community to the minimum.

### ACTIONS AND ACHIEVEMENTS

#### Ensuring Reliable Supply

Recognising the potential risk of supply interruption to the community, HK Electric has strived to maintain an excellent track record in providing reliable electricity supply. In 2012, we again achieved a high supply reliability rating of over 99.999%, a rating that has been maintained since 1997. For details of our efforts in achieving this excellent result, please refer to the *Supply Reliability and Sustainability* section of this chapter.

We are conscientious in ascertaining feedback on our supply service. Our Customer Emergency Services Centre provides 24-hour emergency telephone enquiry services to our customers. To prepare for the worst, in 2012, we carried out 10 drills on our supply contingency plans for hospitals and other sensitive customers. For customers who depend on life support equipment, we are able to make special registration for their accounts to alert our staff to handle their supply with extra care and we can notify them in advance before

carrying out planned supply suspension. We also provide temporary electricity supply with mobile generators for small customers in contingency situations.

### Safety at Heart for the Community

While health and safety is paramount for our people and at our operations, it is also crucial to ensure the well being of the community and the environment in which we operate.

We always think of ways to minimise the risk associated with our facilities and operations. For example, since the early 1980's, HK Electric has introduced completely oil-free distribution substations which pose minimal fire risk. Today, over 90% of our substations in the system are oil-free, which provides us with greater flexibility in where we can install them for customers' convenience. At present, the highest distribution substation in Hong Kong is located in the Central District, at a height of 293 metres above ground.

Residents living close to our Lamma Power Station are received by General Manager (Generation), Mr. Francis Cheng (fourth from the left) during a plant visit.



The Lamma Island community is a close neighbour to our only power station in Hong Kong, and we are keen to build mutual trust with them. During the year, we hosted two visits to the Power Station for them and we also paid six home visits to villagers to gain a better understanding of the neighbourhood environment.

### Crisis Management

To ensure that we are well prepared to manage any emergency situation and to avoid any major disruptions, we have instituted a carefully developed Crisis Management Plan. The Plan addresses our responses to any macro-level

incident or emergency that could disrupt or damage our operations. It provides for the composition of a Crisis Management Team that may be formed on the direction of the Group Managing Director. The Plan is reviewed and revised as and when necessary and a drill to test its effectiveness is staged once a year. Individual business units also have their own contingency plans for maintaining the continuity of their operations. We also carried out drills during the year to test our responses to emergency situations such as oil and chemical spillage, fire, gas leakage, explosion and typhoon.



A fire drill at our Lamma Power Station.

### Promoting Electrical Safety

We conscientiously advocate health and safety awareness to all our stakeholders, and provide advice and guidance on how to safeguard power supplies and minimise the risk of electrical incidents.

During 2012, we conducted four outreach talks for community centres, housing estates and tenants of a shopping mall to promote electrical safety and energy efficiency. Moreover, we conducted various visits, meetings and talks for organisations including the East Cluster of Hospitals, Chinese YMCA of Hong Kong, Hong Kong Jockey Club, Hong Kong Hotels Association and the Business Continuity Management Forum, advising them on how to safeguard power supplies for their important services. We also delivered a presentation on the safety requirements of the electrical installation for hawker stalls to the relevant hawker associations, government departments and District Council members.

# HIDDEN TALENTS BRING SAFETY TO THE FORE



The Company is always looking for innovative ways to improve health and safety in the workplace. Sometimes, we do not need to look far, as new ideas and solutions can be just round the corner.

Mr. Chan Cheung and Mr. Kwong Chiu-wah, two shining examples from our Lamma Power Station, demonstrated their hidden talents by winning "Champion" and "First Runner-up" in the Occupational Safety & Health Innovative Invention Contest.

Many of the world's best inventions are those that are relatively simple, yet they can have a major impact on our day-to-day lives. This is true of the "Safe & Green Rubbish Bin" and the "Powerful Handle".

Mr. Chan has made cleaning work a lot easier with his cleverly designed "Safe & Green Rubbish Bin", which is made of reused oil barrel and allows rubbish to be taken out from the side of the bin instead of from the top, reducing the risk of back injuries.



Derived from the principle of leverage, Mr. Kwong's "Powerful Handle" can exert 150 pounds of force with every pound of input, facilitating firemen or mechanics to release elevator motor brakes during emergencies or repairs.

HK Electric is pursuing patents for these simple yet impressive inventions. To honour the creativity of the inventors, any future proceeds from the patents will go to Mr. Chan and Mr. Kwong. Delighting in the success of his colleagues, Mr. Francis Cheng, General Manager (Generation), said "HK Electric has always supported its staff to continuously improve business processes and occupational safety. These awards have duly recognised our colleagues' skills and innovation."

## Promoting fire safety to Thai community

In 2012, Power Assets' associate company in Thailand, Ratchaburi Power Company Limited (RPCL), expanded its long standing "Basic Fire-fighting Training Project" to include 27 neighbourhood schools. "We recognise that fire accidents are a potential hazard for our neighbouring communities," said Mr. Leung Kai, Chief Operating Officer of RPCL. "The houses are mostly wooden huts and the community relies on open-fire cooking – we consider it a priority to help them prevent and handle fire accidents."



# Caring for Community, Customers and Employees



## ISSUES:

**Community  
Involvement**

**Customer  
Services**

**Employee  
Relations**

Recognising the important role played by Power Assets in the community, we consider social responsibility to be a cornerstone of our business and we strive to nurture a harmonious relationship with all our stakeholders, caring for our employees, customers and the community at large.

Overseen by the Corporate Social Responsibility (CSR) Committee, our approach to caring is manifested in the various policies and systems we have implemented, such as our "SHINE" human resources strategy, our corporate quality and customer services policies, our community investment strategy, as well as our quality management and assets management systems.

## Community Involvement

### STAKEHOLDER EXPECTATIONS

Today, society is expecting more and more responsible business practices from commercial organisations. As pillars of the community, major corporations are expected by their stakeholders to behave in a highly responsible manner, demonstrating their care by working with and giving back to the communities in which they operate.

Different stakeholder groups have different expectations on us. Our customers expect us to provide an excellent service at reasonable prices. This expectation is heightened among the less privileged members of our community, who consider affordability a key concern. All the while, within the Company, employees are seeking ways to give back to the community through company-sanctioned volunteering and community initiatives.

### RISKS AND CHALLENGES

#### CSR Demands

Community involvement requires commercial organisations to understand and address responsibly important social issues. In turn this requires a commitment from organisations to remain aware of and to allocate dedicated resources, ensuring that CSR initiatives are ongoing and effective.

#### Ensuring Best Practice

To address social issues requires an intricate knowledge of those issues as well as the appropriate skills to ensure engagement on such issues is effective. This can be a challenge for commercial entities which have traditionally geared their operations towards business and financial, rather than social objectives.

#### Ensuring Comprehensive Engagement

With great diversity of stakeholders, organisations must be able to monitor and respond to the equally diverse range of social issues and concerns, to prioritise them and to allocate resources to manage them.

Now in its 7<sup>th</sup> year, the U3A Network includes 46 self-learning centres.



### ACTIONS AND ACHIEVEMENTS

#### Nurturing CSR Culture

As we strive to grow our business in a socially and environmentally responsible manner, we put great emphasis on CSR culture. Our CSR Committee meets regularly to manage our policies at all levels, to ensure adequate resources for them and to deliberate on new initiatives that may further improve our CSR performance.

#### Partnering with Experts

To engage our stakeholders effectively on community issues, Power Assets has established strong relationships with many leading NGOs. Working in tandem to ensure a win-win partnership, we benefit from their social service expertise while in turn contributing our professional and technical know-how and the talent and dedication of our employees. Such close partnerships also help us prioritise the causes most worthy of our contribution.

One successful case in point is the U3A (University of the 3<sup>rd</sup> Age) Network aimed to address Hong Kong's ageing population issue. Funded by the HK Electric Centenary Trust and co-organised with the Hong Kong Council of Social Service, the U3A Network encourages lifelong learning and volunteerism among the retired population of Hong Kong. For more about U3A, please refer to the case story at the end of this section.



Through U3A activities, local retirees are encouraged to pursue their dreams and interests.



The "CAREnival for the Elderly" programme is awarded second runner-up of the "2011-12 Best Corporate Volunteer Service Project".



With network of more than 300 keen and spirited elderly ambassadors, the "CAREnival for the Elderly" programme helps identify and engage potential "hidden elderly" individuals.

"CAREnival for the Elderly", another joint initiative that aims to encourage the less active elderly to reach out to society, is now in its 4<sup>th</sup> year. We co-organised this together with the Hong Kong Society For The Aged, Aberdeen Kai Fong Welfare Association, St. James' Settlement and Hong Kong Sheng Kung Hui Western District Elderly Community Centre which joined us as a new CAREnival project partner in 2012. During the year, 210 single senior citizens were identified and invited to join local elderly centres, while home visits were paid to over 500 single elders living in various districts on Hong Kong Island.

In 2012, we supported another programme initiated by Aberdeen Kai Fong Welfare Association on fall prevention for the elderly. Trained volunteers paid monthly visits to the elderly to work with them on basic muscle strength exercises and to check on possible fall hazards in their home environment.

Environmental protection and conservation is another area of focus for our community initiatives. Examples are our Green Hong Kong Green and Green Lamma Green II programmes as mentioned in the *Environmental Conservation* section of this chapter.



U3A (University of the 3<sup>rd</sup> Age)



Fall Prevention Service



CAREnival for the Elderly



## Concessions for the Disadvantaged

Ensuring that all our customers, in particular the underprivileged, can easily access our services and support is a key pledge for the Company. As such, we continue to partner with the Hong Kong Council of Social Service in providing concessionary tariff schemes for the elderly, disabled, single-parent families and the unemployed. Anyone qualifying for these concessions receives a 60% discount for the first 200 units of electricity consumed in a month and is exempted from paying a deposit and minimum charge.

## Volunteering for the Needy

Caring is one of Power Assets' core values. Through the work of "Power Assets Volunteers", we support various charities and take part in many projects that benefit our community and help those in need.

To acknowledge outstanding volunteers and business units during the previous year, an award presentation ceremony took place in April with about 200 volunteers joining the celebration.

To better understand volunteers' interests and skills, a questionnaire survey was conducted in July, generating a total of 277 responses which provided useful information on the depth of talent and skills available for future volunteering activities.

With an aim to take our voluntary services to a higher level, a workshop on community investment and employee volunteering was also conducted in July for key CSR personnel of the Company to familiarise them with the latest developments of our strategic community investments.

In addition to our corporate volunteering initiatives, the Good Neighbour Programme (GNP) was set up in 2012 to encourage colleagues to become "Good Neighbours". During the year, our staff from the GNP partnered with the Mental Health Association of Hong Kong on visits to halfway houses and sheltered workshops in Kwun Tong for former mentally ill individuals.



One of the teams under the Good Neighbour Programme visits retired colleagues. Another team helps children of minority groups integrate better into society.



The GNP also encourages our employees to initiate projects to care for the underprivileged. Four projects were approved with funding in 2012, with two of them launched in August.

## Donations and Sponsorships

We continue to support Social Enterprises which are set up to provide employment opportunities for the underprivileged. During the year, we sponsored the establishment of Good Goods Store run by the Hong Kong Council of Social Service. The store specialises in a full range of organic and fair trade products, promoting a green, earth-friendly and healthy way of life among the public, while providing career opportunities to the less privileged.

Another example is the HK Electric Centenary Trust which again provided HK\$340,000 worth of scholarships to 170 secondary school students in Hong Kong. The Trust also provided funding support for the existing self-learning centres under the U3A Network.



## Power Assets Volunteers in 2012

Registered Volunteers (employees)	Total Voluntary Service Hours	Volunteers Involved (including family members)
950	3,920	1,226

# LEARNING, VOLUNTEERING AND FULFILLING – THE UNIVERSITY OF THE THIRD AGE



Mr. Sy Ching-tam is delighted with his new vocation as a tutor and a volunteer, demonstrating that learning and giving back to his peers and the community do not have to stop in retirement. Mr. Sy, Chairman of the U3A Centre at TWGHs Wilson T.S. Wang District Elderly Community Centre, is an alumnus of the University of the 3<sup>rd</sup> Age (U3A), HK Electric's community programme which encourages local retirees to pursue interest-based lifelong learning and to volunteer for community services.

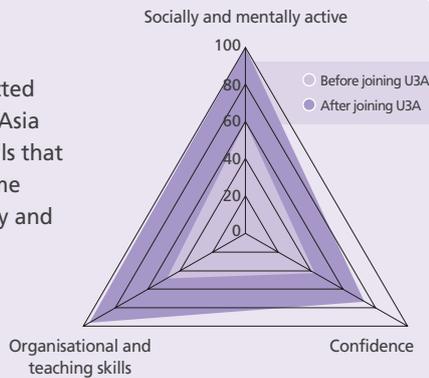
Today, with much longer life spans, "The Third Age" – when individuals no longer work full-time or have retired from family responsibilities – can account for up to a third of one's life. U3A provides an opportunity to make this a fulfilling period based on a unique "learning for pleasure" principle.

Mr. Sy embraced this opportunity. After surviving cancer during his working life, he values the importance of healthy living and wants to help others. He was a baker and now he shares those skills. "U3A has helped me build more self-confidence by empowering me to work with other elderly people," said Mr. Sy. "U3A makes my retired life more meaningful."

Established in 2006, U3A is co-organised by HK Electric and the Hong Kong Council of Social Service, and provides funding to self-learning centres. During the year, funding was provided to sustain the existing network of learning centres, supporting 439 workshops and four knowledge sharing sessions, providing 8,104 learning opportunities for local retirees.

At the Completion Ceremony for U3A 2011-2012, Mr. Sy's enthusiasm and efforts were recognised when he received the "Outstanding Teacher" award (First Runner Up). Mr. Sy is resolute, "I'm fully committed to learning, teaching and sharing at U3A."

The social impact assessment conducted by consultant CSR Asia in 2011-2012 reveals that the U3A programme benefits the elderly and the society.



## The U3A

### Keeps Socially and Mentally Active

98% of U3A participants have achieved or maintained an active or extremely active level of social engagement after joining U3A.

### Enhances Organisational and Teaching Skills

93% of participants indicated they have enhanced their teaching and organisational skills, allowing them to utilise their skills to contribute to society.

### Builds Confidence

71% of respondents have become more confident in sharing views with others, boosting their confidence and self-esteem.



## Customer Services

### STAKEHOLDER EXPECTATIONS

Electricity is vital to our daily life and to the development of Hong Kong. Customers expect high quality services, excellent supply reliability and affordable pricing.

In line with better education and greater awareness, customers are also seeking more interaction with and advice from power companies on technical matters such as power quality and electrical safety, as well as steps they can take to lower their carbon footprints and save energy.

### RISKS AND CHALLENGES

#### Ensuring Supply Reliability

The challenges we are facing and actions we have been taking in delivering a secure and constant supply of electricity have been addressed in the *Supply Reliability and Sustainability* section of this chapter. Our achievement in maintaining an excellent supply reliability rating of over 99.999% since 1997 is an evidence of our commitment.

#### Gaining Understanding from Customers

Power companies must contend with many extraneous factors in delivering their services, including the regulatory environment and variable economic conditions that can impose cost challenges. While these are fundamental operating challenges for any utility, it can be difficult to gain empathy from the community for any change these may cause to tariff levels.

#### Understanding Customers' Needs

Being service providers, power companies have to fully understand and address the needs of customers. The risk of losing touch with customers and underestimating or misreading their needs may arise if there is inadequate monitoring and dialogue.

### ACTIONS AND ACHIEVEMENTS

#### Excelling at Customer Service

Our world-class supply reliability continues to be supported by our excellent customer service, which is a key commitment of HK Electric. During the year, we fulfilled all the 18 customer service pledges and received a total of 1,662 commendations from our customers.

We always respond to customers' enquiries promptly. In 2012, the average waiting times for telephone enquiry services and counter services at our Customer Centre were 8.85 seconds and 0.94 minute respectively, while the average



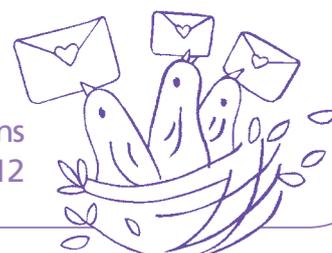
We listen to our customers to understand their needs.

waiting time for telephone calls to our Customers Emergency Services Centre was 1.8 seconds, surpassing our pledged service standards.

We made significant steps during the year to deliver barrier-free services for our customers. In October, we collaborated with Hong Kong Society for the Blind and launched a voice-assisted e-bill service for the visually impaired, supplementing our Braille bills and brochures, large-font bills and pamphlets, and audio guide on customer services. We also started to provide presbyopia spectacles, in addition to magnifying glasses, to facilitate visitors at our Customer Centre. To overcome language barrier, we further expanded our publications for ethnic minorities to include Korean, adding to our existing suite of service pamphlets in Indonesian, Tagalog, Urdu, Japanese, Thai and Nepalese.

Other new customer service initiatives during the year included an exclusive web page for small and medium enterprises, an iPhone App for customers to make service requests, extension of pre-inspection check service to all new customer installations and new payment methods.

1,662  
commendations  
received in 2012





For the fourth year in a row, the award from Asia Pacific Customer Service Consortium recognises our efforts towards service excellence.

To obtain independent verification of our services, we participated in the Mystery Shoppers Programme and Mystery Caller Programme respectively organised by Hong Kong Retail Management Association and Hong Kong Call Centre Association. Mystery shoppers and callers from these two independent bodies evaluated our Customer Centre and Call Centre performance standards. Consequently, we were awarded the “Service Retailer of the Year – Retail (Services) Category” and “Mystery Caller Assessment Gold Award” from these bodies.

### Listening to Our Customers

Gauging the views of our customers is very important to us, as it helps us to better understand and address their needs and expectations. We do this through various channels such as the Customer Liaison Group (CLG), “We Meet on Fridays” sessions, after-service satisfaction surveys, suggestion box and online suggestion form, and ambassador visits. The 2012 average customer satisfaction index from after-service surveys was 4.4 out of a 5-point scale. During the year, we launched two new customer engagement

programmes: “Give-Me-5 Survey” for quick feedback on specific areas and “In-Touch Programme” for the collection of customers’ first-hand experience on our services.

Our CLG, comprising customer representatives from different districts and sectors, met regularly with our management to exchange views and updates on customer service and other corporate initiatives. A total of 27 new members joined the group for a 2-year term beginning 2012, bringing the group size to 53.

We have also listened to customers’ concerns on the tariff issue. At the end of 2012, HK Electric announced a 2.9% tariff increase in response to rising operating costs and fuel expenses. At the same time, we introduced a new “Super Saver Discount” to ease the burden on customers and encourage energy conservation. Moreover, concessionary tariff schemes are in place to provide assistance for those in need. The rationale behind the tariff adjustment has been explained to the Legislative Council through special panel meetings and also to the public via the media.

A visit to Wah Fu – Bowen cable tunnel is arranged in June to enhance CLG members’ understanding of our operations.



**Give-Me-5**  
Customer Service Survey  
「五方聆聽」客戶服務調查



## Promoting Electric Living

During the year, we again conducted activities to encourage the public to switch to electric cooking which has many benefits such as providing a quiet, clean and cool cooking environment. Our Home Management Centre provided 520 cooking and special interest courses to over 10,000 students to promote electric living. The Centre also supported various events during the year, including the Marathon Cooking Contest, the 14<sup>th</sup> Secondary School Cooking Contest, the "Little Master Chef" Cooking Contest and the Hong Kong Flower Show, allowing students and the public to experience the benefits and enjoyment of electric cooking.



Young chefs use electric cooking appliances to make a sumptuous meal.



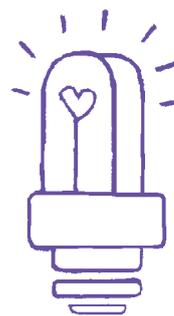
The Company supports the International KamCha Competition by providing electric hot plates for contestants.

We supported the Hong Kong final in the 2012 International KamCha Competition (Hong Kong Style "Milk Tea"), where candidates were required to use electric hot plates for preparing "milk tea" as they are safer to use and help keep water temperature more precise and stable – one of the keys to successful "milk tea" brewing. Also, with the help of HK Electric, Bijas, an eco-friendly vegetarian restaurant at the University of Hong Kong, has adopted an all-electric kitchen and the staff are particularly impressed by the cooking performance as well as the comfortable cooking environment.

Moreover, the Company supported the Hong Kong Federation of Restaurants & Related Trades and Hong Kong Productivity Council for organising an Accreditation Ceremony of "Quality Restaurant Environmental Management Scheme" for the first batch of Accredited Merchants as qualified environmental restaurants. Through this event, we delivered the message on how electric cooking helps restaurants care for the environment. All participating catering associations and restaurants came to appreciate electric cooking for better environmental protection.

## Knowledge Sharing and Technical Advice

Besides offering advice and services on energy saving and electrical safety to our customers (as mentioned in the *Demand Side Management* and *Community and Customer Safety* sections of this chapter), we also advise them on other technical issues such as power quality.



In 2012, HK Electric conducted 14 guided tours for customers to visit the Power Quality Centre, giving them power quality advisory services and information on how to safeguard power supplies for their important services.

During the year, a technical visit was paid to an electrical consultant to exchange views on the coordination between HK Electric and electrical consultants in connection of supply and on other technical matters such as interface requirements. Under our Customer Care Manager Programme, we conducted 43 ambassador visits for our corporate customers to provide them with a one-stop service on technical and account matters.

## Employee Relations

### STAKEHOLDER EXPECTATIONS

Employees today are seeking job satisfaction and opportunities for personal development. They want to work for a reputable employer that is committed to investing in people.

Certainly, employees desire remuneration that is commensurate with their roles and associated challenges and difficulties. They also seek a balance between work and non-work life. Employees will be proud to work for an employer if they can match the company's purpose and values to their own.

### RISKS AND CHALLENGES

#### Competition for Talent

Talent and expertise have become valuable assets and they seek positions that offer structured and rewarding career development paths. Attracting and retaining talented individuals is a constant challenge for many industries. For the power sector, qualified and experienced individuals are in demand.

#### Shared Expectations

To maintain an engaged, committed and high-performing workforce, it is important for a company to align the skills and talents of its employees with the vision and mission of the company while satisfying their expectations. This needs mutual understanding between the company and its employees through effective dialogue and communication.

### ACTIONS AND ACHIEVEMENTS

#### Encouraging Staff to SHINE

Our employees are important assets of the Company. Power Assets strives to be an "employer of choice", and we recognise that in order to attract and retain talents, we must

Good employees and good teamwork make a successful team.



create an environment for them to grow. Our human resources strategy is founded on the principle of encouraging our employees to "SHINE", in the context of **Synergy**, **Holistic Development**, provision of an **Ideal Workplace**, **Nurturing Future Leadership**, and **Excellence**. This strategy ensures that we offer our employees an ideal working environment while empowering them to be the best they can be.

#### Ensuring Equal Opportunities for All

Throughout Power Assets, we endeavour to encourage a community spirit that thrives on mutual respect and equal opportunities. We have an equal opportunities policy that ensures zero tolerance of any discrimination, harassment, vilification or victimization in the workplace. The Company has a diverse workforce, with our 2,000 strong employees all hired according to qualifications, capabilities and areas of expertise. About 17% of our employees as well as 9% of our senior staff are women.

#### Rewarding our Staff

To remain competitive as a leading employer, we review the total remuneration package structure provided to our employees annually, paying special attention to relevant industries and comparable organisations. Our annual corporate Key Performance Indicators give direction and guidance to employee work plans. The initiative, achievements and hard work of our employees are measured and rewarded according to a "Pay-for-Performance" policy. All these measures have helped us maintain a low turnover rate (4% including retirement in 2012).

#### Encouraging Dialogues

Power Assets places importance on our collaborative approach to employee relations. Listening to and acting on employees' views and concerns serve to keep them involved in our plans and strategies for the future.

Within the Company, we have established seven Joint Consultation Panels that act as important platforms to impart employees' views while also acting as a medium for the Company to convey our policies to employees. The Panels comprise more than 70 elected members from our workforce and meet regularly with management. We also engage in regular dialogue with the Trade Union.

We have established many channels for communicating with our employees to encourage dialogue and mutual understanding. These include an online suggestion box, an employee hotline, an employee suggestion scheme, suggestion boxes and canteen focus groups. We also conduct monthly employee relations visits to various work locations, theme talks and topical briefing sessions on company issues. The Company also publishes a quarterly newsletter to share news and developments.



The "Meet Your Directors" forum is organised to enhance communication.

The Joint Consultation Panels comprise members from different departments across the Company.



Dialogue continues at all levels. For example, our operational divisions organised monthly employee engagement talks to share the division's future plans and drives as well as to encourage socialising through birthday celebrations, lucky draws and other special events.

### Nurturing Talents

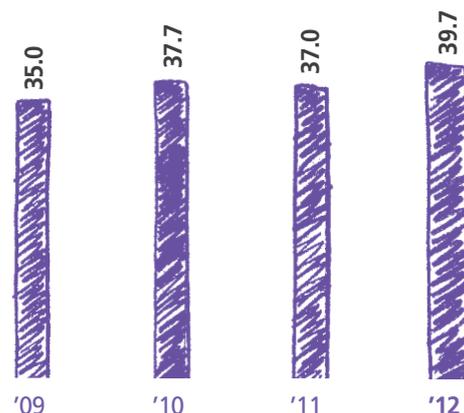
Sustainable business growth is only possible with a dedicated and strong workforce and we must be mindful of constantly appraising and augmenting the skills of our workforce through ongoing training and development. Power Assets is committed to investing in our human resources to ensure

the development of the Company and our employees. We provide a variety of dynamic training and development opportunities which are designed to nurture our young talents, preparing them well for the many opportunities and challenges ahead.

During the year, 16 fresh graduates joined the Company as trainees and commenced a two-to-three-year programme of development that includes orientation, training camp, classroom and on-the-job training. On the other hand, 34 trainees started a new stage in their careers after completing their initial training in 2012.



### Average Training Hours per Employee



We ran a coaching workshop in 2012 to assist our managers to maximise the potential of their subordinates. About 200 managers and supervisors attended the 10 classes organised, as part of a continuation of the efforts and momentum built by the “Corporate Excellence Series” held by the Company over the previous years.



Graduate Trainees represent the Company to join an industry competition and win the Champion trophy.

Power Assets believes that young talents add new perspectives to the Company and we strive to accelerate the development of their careers with us. During the year, a group of 14 younger engineers and managers attended a development assessment, followed by a one-year Leadership Development Programme which provided on-the-job assignments as well as other development activities. Another three young engineers were provided with 3 – 4 weeks of training at our associates in the United Kingdom and Thailand. The training was aimed at widening the business perspectives of these young engineers and increasing their versatility to prepare them to take on greater responsibilities and more complex roles in the future.

We also encourage our employees to contribute to their professional sectors. Some of them hold leading positions in major associations such as The Hong Kong Institution of Engineers, The Institution of Engineering and Technology, Hong Kong, The Hong Kong Association for the Advancement of Science and Technology, and Energy Institute, Hong Kong Branch.

We encourage our employees to enhance their physical fitness, while supporting charity.



## Employee Wellness

Besides maintaining a safe and healthy workplace for employees as elaborated in the *Workplace Health and Safety* section of this chapter, Power Assets also recognises the importance of achieving work-life balance for our employees. We provide all staff with wide-ranging opportunities for development, both professionally and personally. These range from internal and external vocational training courses to participation in sports activities, interest groups, and volunteer and charity services.

We believe that employees having a healthy mind and harmonious relationship with others would benefit their sustainable development in all aspects, thus forming a more engaging workforce. We encourage our employees to become “Good Neighbours” to themselves and others by introducing the Good Neighbour Programme (GNP). It offers a series of training on knowledge about mental health, which comprises of three levels of workshops that are facilitated by experienced trainers and psychologists. The introductory workshop was a half-day one focusing on stress management, followed by two 2-day advanced level of workshops focusing on knowledge and skills for handling common emotional and mental health problems. Certificates were issued to employees who completed at least two levels of the workshops. In 2012, a total of 11 workshops were conducted, engaging 262 employees. Due to the positive response, more workshops will be conducted in 2013. The GNP also encourages our employees to initiate projects to care for the community (as mentioned in the *Community Involvement* section of this chapter).



The “Good Neighbour Programme” is launched with an opening talk “Be Healthy and Happy”.

# SUPPORT FROM ALL AROUND



On 1<sup>st</sup> October 2012, the tragic ferry collision off Lamma Island claimed 39 lives, including seven of our beloved colleagues. It was heart-breaking to all of Hong Kong. During this time of great sorrow, we all sought comfort in the displays of human kindness, sympathy, and caring. As the Company devoted significant effort to supporting those affected and our colleagues, the community showed an enormous outpouring of sympathy and support.

We took immediate action after learning about the accident. In addition to liaising with government departments for the rescue efforts, we implemented various temporary support measures such as individual and group psychological support sessions for our employees, and setting up a 24-hour hotline to provide assistance, as well as upgrading our Employee Assistance Programme to provide round the clock counselling services to employees and family members.

As our management, staff and volunteers worked tirelessly around the clock, over one million tributes from

the public were received via our corporate website and condolence books. The support did not stop there. Flowers and cards filled the office lobby, donations poured into the public donation account, and many paid their respects at the memorial services and religious rituals that were arranged to mourn the deceased.

Together, through public donations, our internal donations and a charity auction, the funds raised totalled over \$6.6 million. The amount was distributed under the supervision of an independent third party vetting panel to those affected. We will continue to provide our utmost support and comfort to those affected, and hope that they can emerge from the shadow of the tragedy.

We would like to again express our gratitude to the Hong Kong community. In addition, we would like to acknowledge the help that our colleagues have given each other during this difficult time. We have truly received support from all around.



# Sustaining Business – Accountability to Shareholders



## ISSUES:

**Accountability and  
Transparency**

**Business  
Development**

Power Assets recognises the importance of shareholder value and considers the interests of shareholders in all its business decisions. We remain accountable and transparent to them, while fully understanding that the true measure of business success is not merely profit-related. Our shareholder communication policy and enterprise risk management framework help ensure we maintain this approach.

To be successful, a business must achieve financial success, while remaining responsible to society and satisfying the expectations of all its stakeholders. Leadership in corporate responsibility ultimately strengthens an organisation and enhances shareholder value over time. Our Audit Committee, Risk Management Committee and Remuneration Committee all play a vital role in this endeavour.

## Accountability and Transparency

### STAKEHOLDER EXPECTATIONS

Shareholders definitely expect their rights and equity value to be well protected. In other words, they expect their investee companies to maintain smooth, effective and transparent operations using sound and effective corporate governance practices.

### RISKS AND CHALLENGES

A public entity must be aware of the investment sentiment. To remain as an attractive investment proposition, it must satisfy shareholders' expectations through regular interaction and engagement with them.

### ACTIONS AND ACHIEVEMENTS

#### Robust Corporate Governance

Power Assets observes high standards of corporate governance, which we maintain through a framework of processes, policies and guidelines and through compliance with the Code on Corporate Governance Practices as set out in the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited. Please refer to our website ([www.powerassets.com](http://www.powerassets.com)) and Annual Report for more details.

In June 2012, we set up a Governance and Compliance Committee with the objectives of continuously examining Power Assets' governance structure, updating new developments in governance, making recommendations on our compliance and control mechanism, and supporting management in assisting the Audit Committee in fulfilling its governance functions on an ongoing basis.

In September 2012, we revised our Code of Conduct to uphold high standards of integrity even more stringently and issued a quick reference card to communicate the principles of the Code more effectively (see the case story following this section).

All registered shareholders are invited to join the Annual General Meeting.



#### Direct Shareholder Engagement

The Board of Power Assets recognises that it is accountable to the shareholders and is diligent in engaging in direct interaction with them. All registered shareholders have the opportunity to put questions to the Board at general meetings and at other times by email or in writing. The chairman and members of the Remuneration Committee and Audit Committee are also available at general meetings to answer questions from shareholders. All directors are subject to retirement and election by shareholders at annual general meetings every three years.

For our shareholders to gain a greater understanding of our business, in 2012 we hosted a series of shareholders' visits to our Lamma Power Station, for the third successive year. A total of 990 shareholders and guests participated in the visits. Surveys were conducted after the visits and the majority of respondents said the visits had increased their understanding of the Company's operations.

#### Transparent Communication

Power Assets provides a high level of transparency in communicating with our shareholders and all other stakeholders. We aspire to achieve international standards of completeness and objectiveness in disclosing our economic, social and environmental performance through various channels such as websites, Annual Reports and Sustainability Reports. We also participate in international disclosure initiatives such as the Carbon Disclosure Project and respond to ESG rating agencies. Such information is of particular importance in relation to our capability of enhancing shareholder value in the long-term. In 2012, Power Assets became the first Hong Kong company included in the Global 500 Carbon Disclosure Leadership Index of the Carbon Disclosure Project and was also selected as a component of the Dow Jones Sustainability Asia Pacific Index for the first time.

# LIGHTS, CAMERA AND SUNSHINE ... PROMOTING CODE OF CONDUCT



The words “action!” and “cut!” are usually associated with the making of a movie rather than the Power Assets office. Yet these were the instructions given to two employees, Paul Sagritalo and Cheung Chi-ming (Ming), when they appeared in a company video.

Paul and Ming were chosen for the roles of executives at the fictitious “ABC Merchandising Company” and its renovation contractor respectively in the video to illustrate the Company’s revised Code of Conduct. Company policies are important, but sometimes explaining them to employees could be difficult. What better way than filming to bring these important issues to life!

Paul and Ming prepared for their roles as “Edmond” and “David” in a story that highlighted some of the key principles of the Code of Conduct. Both actors agree that the experience gave them deeper insight into an employee’s role and responsibility.

“I believe this story is relevant to our daily work life,” said Paul. “During the filming, I come to understand the dilemma faced by “Edmond”, especially when he was challenged to give in to temptation and accepted the contractor’s offer of a discount.”

Ming agreed: “Some of the situations in the video are familiar to us but thanks to the work done so far to heighten our awareness and clarify our views.”

More than 1,400 colleagues attended the “premiere” of the video during a theme talk in September 2012. Further half-day workshops will be held in 2013, offering opportunities for colleagues to ask questions and discuss practical ways of resolving or handling difficult situations. Employees can also refer to the pocket-sized quick reference card containing the eight “SUNSHINE” questions which are easy to remember and applicable to real work life.

And, what about those promising new actors? “It was quite tough and I forgot my lines a few times,” said Paul. “However, I’ve received positive feedbacks from colleagues, and I feel good that I can contribute to strengthen our open and fair work culture.” Ming nodded yes with a smile.

## The 8 “SUNSHINE” questions

- S**ure it is legal?
- U**sually, what would a reasonable person think?
- N**ow, can I tell others about my decision?
- S**top and think! Who and how others would be affected by my decision?
- H**ow would my decision reflect negatively on the Group and myself?
- I**s there any better alternative and does it follow the Code?
- N**eed to consider how it would look like if reported on the newspapers?
- E**ver feel peaceful after I have decided?

## Business Development

### STAKEHOLDER EXPECTATIONS

Companies are expected to perform efficiently and competitively, utilising business development strategies that produce steady year-on-year growth.

### RISKS AND CHALLENGES

As proven by recent years of global economic turmoil, the immediate prospects for many economies remain uncertain. As a global investor in power and utility-related businesses, we have to be mindful of this uncertainty. On the other hand, the power sector in Hong Kong has reached a stage of maturity, offering limited growth opportunities for our local business.

### ACTIONS AND ACHIEVEMENTS

#### Excelling in our Local Business

In Hong Kong, we will continue to improve our operation efficiency and perform as a world-class utility. We will also grasp the business opportunity in helping Hong Kong transform into a low carbon city, while remaining in close dialogue and cooperation with the HKSAR Government and relevant stakeholders.

#### Expanding our Global Footprint

Since 2000, Power Assets has been seeking suitable business opportunities for expanding our investment portfolio outside Hong Kong where we can generate a recurring

Our Lamma Power Station provides our Hong Kong customers with a safe, clean and reliable electricity supply.



profit contribution. To minimise risk, we carry out a full evaluation of potential investment targets in respect of political risk, sovereign credit rating, economic status, energy supply and demand, regulatory regime, any possible change in law, environmental impact assessment, support by local community around project site, and health and safety matters. At the same time, directors or alternates from Power Assets Investments Limited will also regularly attend overseas board meetings of the associate companies to maintain a high standard of corporate governance as well as overseeing their performance in economic, social, environmental, and health and safety aspects. This approach has proven to be successful in sustaining the continuous growth of our overall business. Please refer to the *Summary of Statistics* section of the *In Pursuit of Excellence* chapter for our key financial performance.

In 2012, Power Assets made two significant new investments. We acquired a 30% stake in Wales & West Utilities (WWU), one of the eight major gas distribution networks in the United Kingdom. We will share our experience and expertise with WWU and explore possibilities of operational synergy to further benefit all stakeholders. We also expanded into renewable energy power transmission in Australia by investing in a power transmission link that will connect a 130 MW wind farm in Victoria to the power grid.



WWU is selected as the Utility Industry Company of the Year in 2010, and is named the top performing gas distribution network in customer satisfaction over the last four years.

# In Pursuit of Excellence

## Targets Achieved in 2012

Targets Set	Status
<b>Environment</b>	
Substantially complete the expansion of the 550 kW TFPV solar power system at Lamma Power Station to 1 MW in 2012.	Achieved
Enhance the turbine efficiency of Unit L4 at Lamma Power Station in 2012.	Achieved
Move forward to develop a 100 MW offshore wind farm in Hong Kong by setting up a wind monitoring station at the proposed site in 2012 and collecting the necessary data and information for detailed engineering design of the project by 2013.	Achieved
Reduce fuel usage of the Company's vehicle fleet in 2012 as compared with 2011.	Achieved
Increase EV mileage in 2012 as compared with 2011.	Achieved
Install solar air-conditioning system for more vehicles in 2012.	Achieved
Conduct at least 50 energy audits for HK Electric's non-domestic customers in 2012 to help them identify energy-saving opportunities.	Achieved
Obtain at least one Carbon "Less" Certificate, one "Class of Excellence" Wastewi\$e Label and one "Class of Excellence" Energywi\$e Label under the Hong Kong Awards for Environmental Excellence in 2012.	Achieved
Establish an energy management system based on ISO 50001 for Lamma Power Station in 2012.	Achieved
Extend the GHG assertions conforming to ISO 14064 to cover all our operations in Hong Kong in 2012.	Achieved
<b>Health &amp; Safety</b>	
Achieve a reduction in the Disabling Injury Frequency Rate (DIFR) in 2012 as compared to the average over the past three years.	Achieved
Achieve a reduction in the Disabling Injury Severity Rate (DISR) in 2012 as compared to the average over the past three years.	Achieved
Obtain at least two Indoor Air Quality Certificates (Excellent Class) in 2012.	Achieved
<b>Partners &amp; Community</b>	
Build the necessary electricity infrastructure for Hong Kong's MTR West Island Line and South Island Line from 2013 to 2016 to support the economic and social development of the community.	In Progress
Launch a smart grid pilot project in 2012.	Achieved
Launch a new round of e-bill promotion in 2012 to encourage at least 5,000 customers to switch to e-bills.	Achieved
Introduce e-bill service for the visually impaired customers in 2012.	Achieved
Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services including emergency services in 2012.	Achieved
Launch the Equal Opportunity Policy in 2012.	Achieved
Further expand the Plant Ownership Programme at Lamma Power Station by adding three new projects in 2012 to enhance plant reliability and availability, and to facilitate development of young engineers.	Achieved
Engage more than 1,000 participants in company volunteer services in 2012.	Achieved
Arrange school talks on low carbon living for 6,000 students in 2012.	Missed (see note below)

Note: Some planned talks were cancelled or postponed due to the Lamma sea tragedy.

## Awards and Recognition

The many awards and commendations received by Power Assets during the year are a reflection of the achievements made across our business, and range from prowess in environmental conservation, corporate social responsibility and corporate development, to excellence in customer service and health and safety practices. For a full list of all our awards, please refer to our Annual Report.



Prime Awards for ECO-Business – Platinum Award



HKRMA Mystery Shoppers Programme – 2012 Service Retailer of the Year – Retail (Services) Category



Hong Kong Awards for Environmental Excellence – Sectoral Award – Public Organisation and Utilities: Silver Award



Sowers Action Challenging 12 Hours Charity Marathon – Golden Foot Team Award



Lamma Dragon Boat Race – Champion of Sun Tat Sea Food Cup



Occupational Safety and Health Council – Certificates of International Safe Workplace Programme

## Summary of Statistics

<b>Economic</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
Net assets (HK\$ million)	63,035	57,873	56,137
Turnover (HK\$ million)	10,415	10,201	10,371
Profit for the year (HK\$ million)	9,729	9,075	7,194
Earnings per share (HK\$)	4.56	4.25	3.37
Dividends per share (HK\$)	2.45	2.32	2.11
<b>Environment <sup>[1]</sup></b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Fuel Consumed (TJ) <sup>[2]</sup></b>			
Gas	31,627	31,392	31,532
Coal & oil <sup>[3]</sup>	85,089	81,112	81,101
<b>Licence Compliance</b>			
Percentage of compliance (%)	100	100	100
<b>Air Emissions</b>			
SO <sub>2</sub> (kT) <sup>[2], [4]</sup>	4.09	4.20	5.49
NO <sub>x</sub> (kT) <sup>[2], [4], [5]</sup>	9.73	8.84	9.71
RSP (kT) <sup>[2], [4]</sup>	0.20	0.21	0.24
CO <sub>2</sub> (million T) <sup>[2], [4], [5]</sup>	8.92	8.60	8.62
CO <sub>2</sub> e (million T) <sup>[4], [5], [6]</sup>	8.96	8.63	8.65
CO <sub>2</sub> e per electricity unit sold (kg/kWh) <sup>[6], [7]</sup>	0.79	0.79	0.79
<b>Ash / Gypsum (kT) <sup>[2]</sup></b>			
Ash produced	219	220	225
Ash sold for industrial uses	217	214	219
Gypsum sold for industrial uses	79	91	85
<b>Waste Oils (litres)</b>			
Waste oil recycled	163,100	106,600	133,000
Waste oil for disposal <sup>[8]</sup>	62,800	1,236	600
<b>Water Consumption / Discharge <sup>[2]</sup></b>			
Marine water withdrawal & discharge (million m <sup>3</sup> )	1,910	2,112	2,127
Town water consumption (thousand m <sup>3</sup> )	2,462	2,261	2,347
Wastewater discharge (thousand m <sup>3</sup> )	160	248	238
<b>Noise Abatement Notice</b>			
Number of notices received	0	0	0
<b>Certificate Accreditation</b>			
Number of ISO 14001 certificates	3	3	3

## Notes:

[1] For Hong Kong business.

[2] For power generation only.

[3] Fuel oil is mainly used for starting and flame stabilisation of coal fired units and hence, specific breakdown for fuel oil is not given.

[4] The exceptional energy transfer to CLP after a typhoon in July 2012 caused additional emissions of 0.26 kT SO<sub>2</sub>, 0.33 kT NO<sub>x</sub>, 0.01 kT RSP and 0.20 million T CO<sub>2</sub>.

[5] The increases in emissions were due to increased sales and exceptional energy transfer to CLP.

<b>Operation</b> <sup>[1]</sup>	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Number of Customers</b>			
Number of customers (thousands)	567	567	566
<b>Customer Satisfaction Indices</b>			
Average rating of satisfaction level (maximum mark for each index is 5.0)	4.4	4.4	4.4
<b>Performance Pledges</b>			
Number of performance pledges	18	18	18
Percentage achieved (%)	100	100	100
<b>Installed Capacity (MW)</b>			
Gas	680	680	680
Coal & oil <sup>[3]</sup>	3,055	3,055	3,055
Renewable energy	1.7	1.4	1.4
<b>Performances</b>			
Electricity sold (millions of kWh)	11,036	10,897	10,933
Thermal efficiency (%)	36.0	36.2	36.2
Plant availability (%)	84.6	84.4	85.6
Transmission and distribution losses (%)	3.6	3.6	3.6
<b>Reliability</b>			
Electricity supply reliability (%)	>99.999	>99.999	>99.999
Unplanned customer minutes lost (minutes)	0.7	0.7	0.9
<b>Certificate Accreditation</b>			
Number of ISO 9001 certificates	10	10	10
Number of HOKLAS certificates	3	3	3
Number of BSI PAS 55-1 certificates	2	1	1

<b>Health &amp; Safety</b> <sup>[1]</sup>	<b>2012</b> <sup>[9]</sup>	<b>2011</b>	<b>2010</b>
Number of fatalities	0	0	0
Number of disabling injuries	2	5	8
Disabling Injury Frequency Rate (DIFR) (per 200,000 employee-hours)	0.10	0.23	0.36
Number of days lost/charged (no. of employee-days)	18	364	183
Disabling Injury Severity Rate (DISR) (per 200,000 employee-hours)	0.9	16.5	8.3
Longest period without a lost-time injury (no. of days)	286	132	108
Number of reported traffic accidents (no. of cases)	8	5	10
Traffic Accident Frequency Rate (TAFR) (no. of cases per million km travelled)	3.6	2.3	4.3
Number of OHSAS 18001 certificates	3	3	3

[6] The methodology used for calculation is drawn from the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories.

[7] For HK Electric customers only and hence, excluding exceptional energy transfer to CLP.

[8] The increase in waste oil for disposal was related to the Fuel Oil Service Tanks conversion work for phasing out heavy fuel oil.

[9] On 1<sup>st</sup> October 2012, HK Electric's ferry, Lamma IV, was hit by another ferry, Sea Smooth, of Hong Kong and Kowloon Ferry near Lamma Island. This accident involved a total of 127 people (including employees, their family members and friends) on board Lamma IV, resulting in 39 fatalities and 88 injuries. The accident was categorised separately from the above safety performance statistics.

## Looking Ahead

To adhere to one of our corporate core values of pursuing excellence, we have set demanding targets for ourselves in the area of sustainability. We are committed to delivering on these targets by adopting long-term sustainability strategies and plans for all key aspects of our business.

Recognising that air quality and climate change are key concerns for the community, the Company will continue to aggressively pursue a corporate environmental policy that ensures we generate electricity efficiently and take measures to reduce our carbon footprint and strive to meet the tightening emission allowances set by the HKSAR Government. We are proud to be pioneering the development and utilisation of renewable energy (RE) in power generation in Hong Kong and the Company will continue to look for further ways of introducing RE into our operations. We will also be exploring opportunities for leveraging our expertise and capabilities in RE in global markets. As a responsible company, we will continue to openly and transparently report on our carbon performance.

As a corporate citizen, we will continue to partner with relevant organisations to give back to the community. We will also hold on to our duty of supplying safe, clean and reliable power for our customers and for sustaining Hong Kong's economic development. We put stakeholder engagement close to our hearts and pledge to listen to and address the views of our various stakeholders. We value and treasure our people and we will continue to invest in our human resources to ensure the development of the Company and our employees. We place great emphasis on health and safety, and we will strive to achieve the highest standards to ensure the well being of our employees, business partners, customers and community.

We appreciate the commitment and support of our shareholders. We will remain committed to achieving excellence by establishing a strong financial position and by striving to generate revenue growth through our diverse and expanding investment portfolio.

We believe that only by driving continuous improvement in all these can we make Power Assets a truly successful and sustainable business in Hong Kong and global markets.



## Targets

### Environment

- Submit the Offshore Wind Farm Project Feasibility Study Report to the Environment Bureau in 2013.
- Review and update the Corporate Environmental Policy in 2013.
- Devise action plans to address the recommendations in the voluntary Biodiversity Study for Lamma Power Station in 2013.
- Collect and reuse at least 100,000 m<sup>3</sup> of wastewater and rainwater at Lamma Power Station in 2013.
- Reduce fuel usage of the Company's vehicle fleet in 2013 as compared with 2012.
- Increase EV mileage in 2013 as compared with 2012.
- Conduct at least 50 energy audits for HK Electric's non-domestic customers in 2013 to help them identify energy-saving opportunities.
- Obtain at least one Carbon "Less" Certificate, one "Class of Excellence" Wastewi\$e Label and one "Class of Excellence" Energywi\$e Label under the Hong Kong Awards for Environmental Excellence in 2013.

### Health & Safety

- Achieve a reduction in the Disabling Injury Frequency Rate (DIFR) in 2013 as compared to the average over the past three years.
- Achieve a reduction in the Disabling Injury Severity Rate (DISR) in 2013 as compared to the average over the past three years.
- Obtain at least two Indoor Air Quality Certificates (Excellent Class) in 2013.

### Partners & Community

- Build the necessary electricity infrastructure for Hong Kong's Mass Transit Railway West Island Line and South Island Line from 2013 to 2016 to support the economic and social development of the community.
- Conduct a Proof-of-Concept evaluation of the promising smart grid technology under the local context in 2013 as part of the Smart Grid Pilot Project.
- Launch a new round of e-bill promotion in 2013 to encourage at least 5,000 customers to switch to e-bills.
- Fulfil all our customer service pledges, embracing supply reliability, speediness of provision of supply and other customer services including emergency services in 2013.
- Further expand the Plant Ownership Programme at Lamma Power Station by adding three new projects in 2013 to enhance plant reliability and availability, and to facilitate development of young engineers.
- Arrange workshops for all employees in 2013 to deepen their understanding of the newly revised Code of Conduct.
- Arrange more Good Neighbour Programme Workshops for employees in 2013.
- Engage more than 1,200 participants in company volunteer services in 2013.
- Arrange company visits for 1,000 shareholders and accompanying guests in 2013.

# Verification Statement

## Third-party Independent Verification



### VERIFICATION STATEMENT

#### Scope and Objective

Hong Kong Quality Assurance Agency (“HKQAA”) was commissioned by Power Assets Holdings Limited (hereinafter referred to as “Power Assets”) to undertake an independent verification of the Sustainability Report 2012 (hereinafter called “the Report”). The Report stated Power Assets’ sustainability performance and efforts made for the period from 1<sup>st</sup> January 2012 to 31<sup>st</sup> December 2012. The verification team did not partake in the compilation of the data and information in the Report.

The aim of this verification was to provide assurance on the completeness and accuracy of the information stated in the Report. The Report’s coverage of the standard disclosures defined in the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines Version 3.1 (G3.1) was also assessed to confirm if the A+ application level was achieved.

#### Methodology

The process used in this verification was based on current best practices. The Report was reviewed based on the following criteria:

- The principles of completeness, accuracy, neutrality, comparability and responsiveness, as set out in the Institute of Social and Ethical AccountAbility standard AA1000, and
- The Global Reporting Initiative (GRI) G3.1 Guidelines and Electric Utility Sector Supplement.

The verification procedure included reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the selected representative sample of data and information consolidated in the Report. Raw data and supporting evidence of the selected samples were thoroughly examined.

#### Conclusion

Based on the outcome of the verification process, the verification team determined that the Report fulfils the A+ application level of the GRI G3.1 Guidelines.

The information presented in the Report provided a material and complete representation of the performance of Power Assets in the context of sustainable development. The verification team confirmed that the Report was prepared based on factual statements and that the data contained within the Report are accurate. It is a fair and honest representation of initiatives, targets, progress and performance on Power Assets’ sustainable development achievements.

Signed on behalf of Hong Kong Quality Assurance Agency

A handwritten signature in black ink, appearing to read 'Jorine Tam', is written over a faint, light-colored signature line.

Jorine Tam  
Assistant Director  
March 2013

## GRI Application Level Check



## Statement GRI Application Level Check

GRI hereby states that **Power Assets Holdings Ltd.** has presented its report "Sustainability Report 2012" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see [www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf](http://www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf)

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 13 March 2013

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a faint, large watermark of the GRI globe logo in the background.

Nelmara Arbex  
Deputy Chief Executive  
Global Reporting Initiative



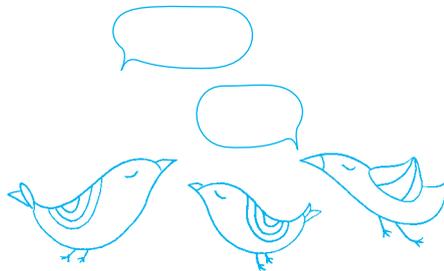
The "+" has been added to this Application Level because Power Assets Holdings Ltd. has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

*The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)*

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 7 March 2013. GRI explicitly excludes the statement being applied to any later changes to such material.



Power Assets Holdings Ltd.  
電能實業有限公司



## Share your views with us!

We value your views on our Sustainability Report and your feedback is important to us in realising our vision of a sustainable future. We invite you to share your comments with us by filling in the online feedback form on our website or by contacting us at:

Environmental Affairs Department  
Corporate Development Division  
The Hongkong Electric Co., Ltd.  
44 Kennedy Road, Hong Kong

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