



# Enhancing Capabilities Powering Growth

ANNUAL REPORT 2010



# Our Mission

We provide reliable and efficient energy utility services to enhance the economy and the quality of life.

# Our Values

## COMMITMENT

We commit to creating value for our customers, our people, and our shareholders.

We uphold the highest standards of service and performance.

## INTEGRITY

We act with honesty.

We practise the highest ethical standards.

## PASSION

We take pride and ownership in what we do.

## TEAMWORK

We support, respect and trust each other.

We continually learn, and share ideas and knowledge.

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## **The Singapore Power Group**

Singapore Power Group (SP) is a leading energy utility company in the Asia Pacific. We own and operate electricity and gas transmission and distribution businesses in Singapore and in Australia, primarily in Victoria, New South Wales and Queensland.

Over a million Singapore industrial and domestic customers benefit from SP's world-class electricity and gas transmission and distribution, and market support services. Singapore has one of the fewest and shortest power outages among cities worldwide, as rated by international industry indices.

In Australia, SP owns a diversified energy utility company, SPI (Australia) Assets (SPIAA), primarily consisting of the Jemena companies, and 51% of SP AusNet, which is publicly listed on the Australian and Singapore Stock Exchanges.

As one of Singapore's largest corporations, SP achieved a revenue of S\$7.8 billion and managed S\$31.1 billion of assets in FY 10/11.





# Enhancing Capabilities Powering Growth

At SP, our mission has always been to provide reliable and efficient utility services to enhance our customers' quality of life.

Today, holding steadfast to our mission, we operate robust energy networks that ensure power to millions of homes and businesses every day. Such a task takes nothing less than world-class capabilities, and that includes the best-of-class infrastructure, as well as the right people.

This is why we consciously seek to invest in new, advanced technologies and continually improve our operating processes. Equally important – naturally – are our people. We are committed to developing the full potential of every staff member, just as we are committed to upgrading our systems and operations.

**Enhancing Capabilities, Powering Growth.** This is what we believe in.

“Overall, FY 10/11 proved to be a positive year with its own share of challenges for Singapore Power. As the global economy continued its recovery, the SP Group turned in commendable results, surpassing that of the previous year. We continued to focus on growing our businesses, while maintaining operational excellence.”



# From the Chairman

## **Financial Performance**

For the financial year ended 31 March 2011, SP Group posted a 23% increase in net profit to S\$893 million from S\$728 million, excluding exceptional and non-recurring items.

Our operations in both Singapore and Australia have benefited from the strong domestic economy respectively following the global recovery, and continued to grow steadily and prudently with improved financial results.

The Group's return on equity (ROE) stood at 12.2%, excluding exceptional and non-recurring items. This represents a 1.2% decline compared to the previous year, largely attributable to the impact of exchange translation as a result of the relative strength of the Australia dollar versus Singapore dollar on our shareholders' equity. Excluding exchange translation, the Group's ROE for the financial year ended 31 March 2011 would be marginally higher than the previous year.

The Group's total assets stood at S\$31.1 billion, up from S\$30.3 billion a year earlier.

## **Operational Excellence**

As part of our efforts to provide reliable and efficient electricity and gas services to our customers, we continued to build on our core strengths and capabilities.

The Singapore electricity network performance in FY 10/11 was well within set targets.

The System Average Interruption Duration Index (SAIDI) was 0.7 minute, while the System Average Interruption Frequency Index (SAIFI) was 0.04 interruption per customer per year.

In the recent benchmarking study conducted by KEMA, an international utility consultant, SP PowerGrid again achieved exceptional network performance during the year. The study highlighted that Singapore had the fewest and

shortest outages among cities globally, and consumers here enjoy competitive prices for electricity coupled with the best-in-class network performance. We achieved these through consistently investing in our operations and systems, and in staff development.

Network performance for gas in the same period was also well within regulatory targets, with SAIDI and SAIFI scores of 0.313 minute and 0.0025 interruption per customer per year respectively.

On the customer service front, SP Services continued to garner recognition for its excellent service through consistent service delivery and new initiatives. A benchmarking survey conducted in December 2010 found that SP Services had outperformed major utilities overseas in terms of cost efficiency and service levels.

SP Services also performed well at the 2010 International Contact Centre Awards, winning Gold in two categories, the Most Innovative Use of Technology and Best Contact Centre Manager of the Year (above 100 seats).

In Australia, SP AusNet continued to invest in initiatives to improve performance and reliability. We upgraded the electricity distribution network, allowing a faster response time to outages and the ability to switch power around the network from other areas if a fault occurs.

The year in review also saw SPI (Australia) Assets (Jemena) celebrate 10 years of safe and efficient operation and maintenance of the Eastern Gas Pipeline (EGP). The pipeline provides natural gas to over 40% of Sydney, as well as the Australian Capital Territory.

## **Major Developments and Projects**

During the year in review, we continued to push ahead with investments in our electricity infrastructure to ensure an efficient and reliable delivery of quality power into the future.

# From the Chairman

One of the key projects undertaken during the year was the development of the 18.5km North-South and 16.5km East-West cable tunnels in Singapore. When completed, the two tunnels will provide secure corridors for faster and more efficient installation of transmission cables and the replacement of ageing 230kV circuits.

Smart grids are the future of energy infrastructure, and SP is committed to working closely with the government and industry partners on the research and development of smart grid technologies in Singapore. Our initiatives include enhancement of the existing intelligent systems, collaboration with the Energy Market Authority (EMA) on projects, and collaboration with Research Institutes to develop solutions and enhance technical know-how and capabilities.

The year in review also saw SP Services embarking on the upgrading of its IT System, enabling retail competition in the Singapore Electricity Market. The system upgrade will help SP Services maintain a robust and efficient IT system to serve the needs of a growing contestable customer base in the electricity market and improve efficiencies through the consolidation of a common IT platform. Intensive development and testing activities were conducted in preparation for the system go-live in 2012.

SP Services introduced an e-billing email alert, providing customers their monthly utility bill summary via email without needing to access their accounts online. Besides enjoying greater convenience, customers can now opt to go paperless and view their current and past bills online.

In Australia, our subsidiaries, SP AusNet and Jemena, commenced the roll-out of the smart meters under the Advanced Meter Infrastructure (AMI) initiative as planned. Our AMI Network Operations Centre is now receiving data from over 154,000 smart meters installed at households and businesses on the network.

Select Solutions, a non-regulated business unit under SP AusNet, established its position as Victoria's largest water metering service provider through its acquisition of Schultz Plumbing in October 2010. Select Solutions also invested

in innovative technologies to facilitate and improve the identification of potential issues or faults on electricity assets. These technologies played a key role in the response and recovery from Cyclone Ului and Cyclone Yasi.

## *Valuing Our Human Capital*

At SP, our core expertise lies with our people. During the year in review, investments in staff training and development remained a top priority.

In FY 10/11, we leveraged the National Skills Programme for Upgrading and Resilience and provided over 1,400 up-skilling opportunities for staff. SP also launched a structured training programme for young engineers to acquire knowledge specific to the electricity and gas transmission and distribution industries. Over 40 engineers have enrolled in the programme and the knowledge gained allowed them to adapt more seamlessly to our engineering environment.

SP also strengthened its partnership with its labour union, the Union of Power and Gas Employees (UPAGE), through the signing of a new Collective Agreement in July 2010. The new agreement features enhanced progression and re-employment opportunities for staff.

In Australia, SP AusNet has developed a talent management strategy to assist in building a high-performance culture and deliver transformational change across the business. This strategy recognises and outlines the need to attract, assess, develop and retain people.

SP AusNet was also presented with the 2010 Minister's Award for Excellence for Employers of Australian Apprentices for the Gippsland region. The award recognised SP AusNet for demonstrating commitment, innovation and outstanding achievement in the training of apprentices.

In 2010, Jemena conducted an Employee Climate Survey to determine the level of employee engagement within the organisation. Specific action plans, including a Jemena-wide Employee Engagement Programme, were developed to improve employee engagement levels.



# From the Chairman

## *Giving Back to the Community*

As our business continued to grow, so did our commitment towards contributing to the community and helping the less privileged.

In FY 10/11, the SP Heartware Fund raised over S\$880,000 for the needy elderly under seven Home Help Service programmes. In recognition of our contributions to the Home Help Service, the Community Chest awarded us the 5-Year Outstanding Special Events Award and the Special Events Platinum Award for the year.

During the year, SP also provided over S\$58,000 worth of sponsorships to 14 organisations as part of its corporate philanthropy efforts.

In Australia, SP AusNet supported the local rebuilding and revegetation of areas affected by bushfires while Jemena raised over A\$140,000 for local and overseas charities.

SP AusNet and Jemena also continued their partnership with Landcare Australia, providing key funding for native flora and fauna projects within network areas, for the restoration and revegetation of land areas to protect the habitats of native species as well as to enhance areas available for public use.

## *In Appreciation*

I would like to thank my fellow Board members for their valuable advice and guidance over the past year. I am also pleased to welcome to the Board Tan Sri Mohd Hassan Marican, who joined us on 15 February as an independent director.

I also wish to extend my deep appreciation to Mr Eric Gwee who will be retiring from the Board at the SP Annual General Meeting in July 2011. SP has benefited much from Mr Gwee's contributions and years of dedicated service.

Our achievements in FY 10/11 were made possible because of the dedication and commitment of our staff. To all of them, I extend my sincere appreciation.

I also thank UPAGE for its sterling service in upholding the interests of its members, while working closely with the SP Group Management, as well as the Unions representing our employees in Australia, for their unwavering effort in building the close ties that we enjoy.

My gratitude also goes to our business partners and customers for their continued support.

## *Looking Ahead*

With the fast-changing landscape of the industry, the future will no doubt bring new challenges. We must be ready to take on the challenges that lie ahead. We will continue to benchmark our engineering capabilities against the world's best, and constantly look to improve our systems and embed in our processes the best practices that drive greater efficiency in our operations and achieve the best performance.

Not least, we will continue to invest in developing our people's potential. Their expertise and their drive to set new benchmarks in the face of new challenges are critical to the continued growth and success of Singapore Power.

As Singapore Power continues to build on its capabilities to keep pace with the changing industry landscape and new challenges, I am confident that we have what it takes to seize new growth opportunities and take SP to greater heights in the years to come.



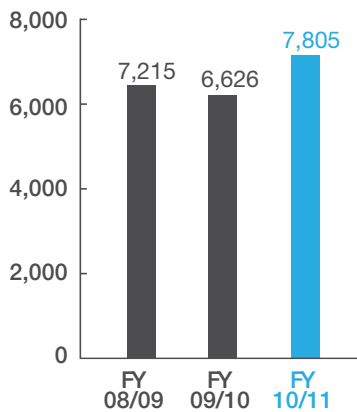
**Ng Kee Choe**

*Chairman*

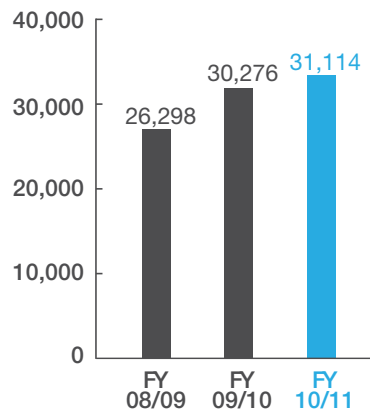
*12 July 2011*

# Financial Highlights

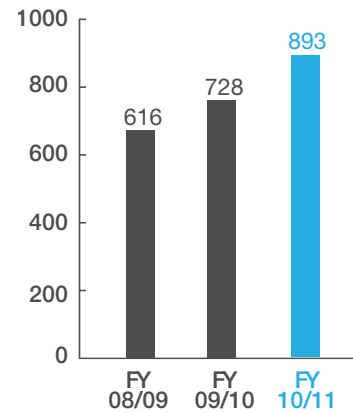
**OPERATING REVENUE**  
(S\$million)



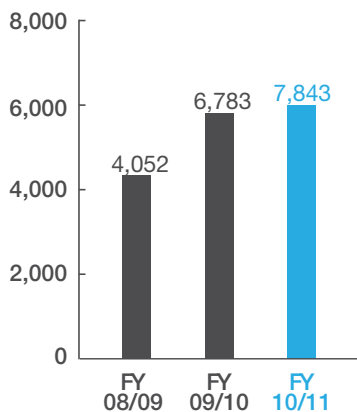
**TOTAL ASSETS**  
(S\$million)



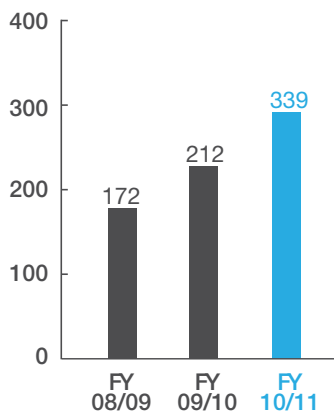
**UNDERLYING NET PROFIT AFTER TAX\***  
(S\$million)



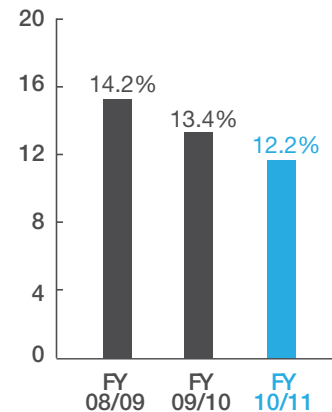
**SHAREHOLDERS' EQUITY**  
(S\$million)



**ECONOMIC VALUE ADDED (EVA)**  
(S\$million)

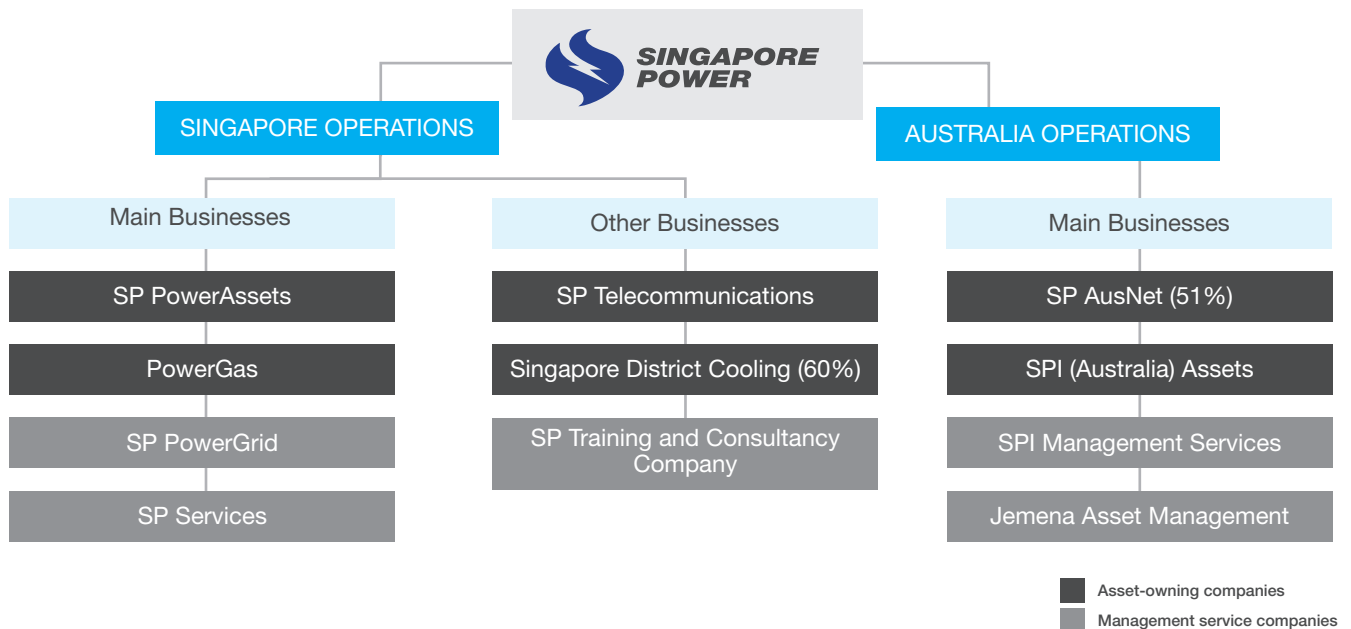


**UNDERLYING RETURN ON EQUITY\***  
(S\$million)



\*Excluding Exceptional and Non-recurring items

# Group Structure



## Singapore Operations

Our Singapore Operations have four main business units – SP PowerAssets, PowerGas, SP PowerGrid and SP Services. They also have a technical training and management consultancy arm and related businesses.

**SP PowerAssets** owns the electricity transmission and distribution assets, while **PowerGas** owns the gas transmission and distribution assets in Singapore.

**SP PowerGrid** manages the electricity and gas transmission and distribution networks owned by SP PowerAssets and PowerGas.

**SP Services** provides market support services to electricity, gas and water customers, and facilitates electricity retail market competition.

**SP Telecommunications** provides telecom infrastructure services, leveraging SP's expertise in managing and developing infrastructure assets.

**Singapore District Cooling** is a joint-venture company providing chilled water for the air-conditioning of commercial buildings.

**SP Training and Consultancy Company** provides consultancy, training and management services, leveraging SP's expertise in developing and operating energy utility infrastructure and businesses.

## Australia Operations

Our Australia Operations have four main business units – SP AusNet, SPI Management Services, SPI (Australia) Assets and Jemena Asset Management Co.

**SP AusNet** owns and operates Victoria's primary electricity transmission network, an electricity distribution network in eastern Victoria, and a gas distribution network in western Victoria.

**SPI (Australia) Assets** is the holding company for assets acquired from the former Alinta Ltd. SPIAA and its subsidiaries own gas transmission pipelines, gas and electricity distribution networks, and an asset services provider business.

**SPI Management Services** is the management company operating the business of SP AusNet under a management services agreement.

**Jemena Asset Management Co.** manages the assets owned by SPI (Australia) Assets and its subsidiaries. It also provides third-party asset development, construction and management services.

# Awards & Accolades

## SINGAPORE OPERATIONS

### ISO 9001:2008 Certification for Quality Management System

- **SP PowerGrid** (Distribution Control & Customer Services Section) by Certification International, FY 06/07 to present
- **SP PowerGrid** (Network Development) (Electricity) by Certification International, FY 02/03 to present
- **SP PowerGrid** (Network Management) (Electricity) by Certification International, FY 02/03 to present
- **SP PowerGrid** (Gas Operations) by SGS International Certification Services Singapore Pte Ltd, FY 00/01 to present
- **SP Services** by BSI Management Systems, FY 04/05 to present

### Singapore Quality Class Certification (STAR)

- **SP Services** by SPRING Singapore, 2010 to 2013

### Singapore Service Class Certification

- **SP Services** by SPRING Singapore, 2010 to 2013

### ISO/IEC 17025 for Calibration and Measurement of Gas Meters

- **PowerGas** by the Singapore Accreditation Council-Singapore Laboratory Accreditation Scheme, 2005 to present

### People Developer by SPRING Singapore

- **Singapore Power**, 2000 to 2013
- **SP PowerGrid**, 2005 to 2012
- **SP Services**, 2005 to 2013

### Singapore H.E.A.L.T.H. (Helping Employees Achieve Life-Time Health) Award, Gold

- **Singapore Power Group** by the Health Promotion Board, 2004 to 2010

### Work-Life Achiever Award

- **Singapore Power Group** by the Ministry of Manpower, 2006 to 2010

### Leading HR Practices Awards in Strategic HR, Employee Relations & People Management, Compensation and Rewards Management, Learning & Human Capital Development and The Corporate HR Award

- **Singapore Power Group** by the Singapore Human Resources Institute, 2009

### Minister for Defence Award

- **Singapore Power Group** by the Ministry of Defence, 2005 to 2010

### The Minister's Honours Roll & Minister for Home Affairs Award

- **Singapore Power Group** by the Ministry of Home Affairs, 2008 to 2010

### SHARE Corporate Gold Award

- **Singapore Power Group** by the Community Chest, 2003 to 2008

### Special Events Platinum Award

- **Singapore Power Group** by the Community Chest, 2006 to 2008

### Gold Award for Most Innovative Use of Technology in a Contract Centre

- **SP Services** by the 2010 International Contact Centre Award

# Awards & Accolades

## Gold Award for Best Contact Centre Manager of the Year

- **SP Services** by the 2010 International Contact Centre Award

## Certificate of Merit for Superior Achievement

- **Singapore District Cooling** by the 2011 International District Energy Climate Awards 2011

## OHSAS Certification for Occupational Health & Safety Management System

- **Singapore District Cooling** by TÜV SÜD PSB Pte Ltd, 2008 to 2011

## AUSTRALIA OPERATIONS

### BSI PAS 55 Certification to British Asset Management Specification

- **SP AusNet** by Asset Management Consulting Limited, 2008 to 2013

### 2009 Equal Opportunity for Women in the Workplace Agency (EOWA) Business Achievement Award for Outstanding Equal Employment Opportunity (EEO) Practice

- **SP AusNet** by the Equal Opportunity for Women in the Workplace Agency (EOWA), 2009

### Excellence for Employers of Australian Apprentices

- **SP AusNet** by the Federal Skills Minister – 2010 Minister's Award

### Innovation Award

- **SPI (Australia) Assets** by the 2011 New South Wales Gas Awards for Excellence

### Innovation in Utility Services Engineering Award

- **Jemena Sydney Primary Loop Project** by the Institute of Public Works Engineering Australia (NSW)

### Safety Initiative Award

- **Jemena Gas Networks** by the 2010 New South Wales Gas Awards for Excellence

### Engineers Australia Graduate Electrical Power Engineer of the Year Award for 2011

- **Jemena Gas Networks**, 2011

### Meritorious Contribution to the Gas Industry

- **Jemena Gas Networks** by the 2011 New South Wales Gas Awards for Excellence

### Team of Excellence in a Long Term Alliance

- **CLM Infrastructure** (a member of the Jemena Group of Companies) by the Alliancing Association of Australasia

# Corporate Review

Riding on the global economic recovery in FY 10/11, the SP Group registered significant growth in both its Singapore and Australia operations.

Indeed, the SP Group's continued strategic focus on the transmission and distribution segments of the electricity and gas industries stood it in good stead, with the Group's revenue and earnings rising significantly.

SP remains dedicated to strengthening its core capabilities and expertise. We achieve this by continuing to invest in the development of our technical and operational competencies, as well as in our people.

SP's strong growth is supported by four key pillars:

Investment Strategy

Financing Strategy & Capital Management

Operational Excellence

Human Capital

## *Investment Strategy*

The SP Group constantly seeks to improve returns for its stakeholders, as well as deliver sustainable long-term value.

SP's investment in Australia represents 69% of the Group's total assets. The financial contribution from SP's business in Australia increased from 33% in FY 09/10 to 51% in FY 10/11.

This increase was contributed mainly by regulated network businesses through higher capital investments, as well as better performance by Jemena's service business.

The recovery of many economies from the global financial crisis has also resulted in a renewed interest in infrastructural investments in Singapore, Australia, Europe and USA, and presented opportunities for SP to establish strategic investment partnerships with global financial investors.

## *Financing Strategy & Capital Management*

As a result of the improved financial market and liquidity conditions, the SP Group has been able to finance its capital expenditure programme and refinance its maturing debt at competitive rates.

Significant financial transactions completed during the year include the following:

- SP PowerAssets issued a total of S\$740 million of bonds under its S\$8 billion Global Medium Term Note Programme. These issuances comprised three bonds in two different currencies, with maturities ranging from 7 to 12 years;
- SP AusNet completed A\$800 million of financing through a series of bank debt facilities, as well as a 10-year A\$250-million bond issued in March 2011; and
- SPI (Australia) Assets established itself in the capital markets with three bond issuances totalling A\$1,094 million. These issuances, which were in three different currencies, have maturities ranging from 5 to 10 years. In addition, SPI (Australia) Assets also put in place A\$1,700 million of bank debt facilities.

# Corporate Review

The proceeds from the bond issuances have been used mainly to refinance maturing bank debt, while stretching out the Group's debt maturity profile.

The SP Group is committed to maintaining a prudent financial profile, as well as a strong credit rating. SP is currently rated AA- / Aa3 (both ratings on "stable outlook") by Standard & Poor's and Moody's Investors Service respectively.

## **Operational Excellence**

SP continues to build on its core strengths and capabilities to compete with the industry's best. In Singapore, the average duration of unplanned electricity interruption a customer experienced was less than a minute, i.e. 0.7 minute, which represents a system reliability of 99.9999%.

Similarly, the network performance for gas in the same period was also well within regulatory targets, with SAIDI and SAIFI scores of 0.313 minute and 0.0025 interruptions per customer per year respectively.

On the customer service front, SP Services continued to achieve recognition for its excellent service through consistent service delivery and new initiatives. In December 2010, a benchmarking survey conducted by leading electricity consultancy, KEMA International, established that SP Services had outperformed major utilities overseas in terms of cost efficiency and service levels.

In Australia, SP AusNet continued to invest in initiatives to improve performance and reliability. The electricity distribution network received several technological upgrades, allowing a faster response time to outages and the ability to switch power around the network from other areas if a fault occurs.

The year in review also saw Jemena celebrate ten years of safe and efficient operation and maintenance of the Eastern Gas Pipeline (EGP). The pipeline provides natural gas to over 40% of Sydney as well as the Australian Capital Territory (Canberra).

## **Building Human Capital**

With more than 7,500 staff in Singapore and Australia, enhancing our employees' skills is key to strengthening our core competencies and sustaining our leading performance levels to secure our future.

To successfully operate our asset owner-asset manager business model, we are firmly committed to investing in our people to deepen our bench strength. We upgrade their skills by providing opportunities for higher learning, on-the-job training, participation in specialist and apprenticeship training schemes, overseas cross-postings and job rotations. We support them in their pursuit of lifelong learning by providing subsidies for personal development courses. We stress a culture of open communication and work-life balance so that they lead healthy and enriching lives. We actively create communication avenues to listen to them so as to understand their needs. We introduced flexi-hours, the Work-from-Home Scheme as well as pro-family leave schemes to help them balance the demands of work and family.

## Board of Directors



### Mr Ng Kee Choe

Mr Ng Kee Choe, 67, is the non-executive Chairman of Singapore Power Limited. He was appointed Director on 1 September 2000 and became its Chairman on 15 September 2000. He is also the non-executive Chairman of SP AusNet\*.

Mr Ng is also Chairman of NTUC Income Insurance Co-operative Limited and President Commissioner of PT Bank Danamon Indonesia Tbk.

His other directorships include those of SATS Ltd, Singapore Exchange Limited, Fullerton Financial Holdings Pte Ltd and CapitaLand Limited.

He is also a member of the Temasek Advisory Panel, a member of the International Advisory Council of China Development Bank and Chairman of Tanah Merah Country Club.

Mr Ng was the Vice-Chairman of DBS Group Holdings. He retired from his executive position in July 2003 after 33 years of service with DBS.

Mr Ng was conferred the Public Service Star in 2001.



### Mr Alan Chan Heng Loon

Mr Alan Chan Heng Loon, 58, is a non-executive independent Director of Singapore Power Limited. He was appointed on 1 June 2001 and is also the Chairman of SP PowerAssets Limited and PowerGas Limited.

Mr Chan is the Chief Executive Officer and a Director of Singapore Press Holdings Limited. He is the Chairman of the Urban Redevelopment Authority, the Corporate Governance Council and SPH Magazines Pte Ltd. He is also a member of the Board of Governors of The Singapore-China Foundation and the Public Service Commission. He sits on the boards of MediaCorp TV Holdings Pte Ltd, MediaCorp Press Ltd, Singapore Press Holdings Foundation Limited, TP Ventures Pte Ltd, GMM Times Company Limited, OpenNet Pte Ltd, Business China, Magazines World Sdn Bhd, Blu Inc Holdings Malaysia Sdn Bhd, Blu Inc Media Sdn Bhd and World Association of Newspaper – IFRA.

Previously, Mr Chan was the Permanent Secretary for the Ministry of Transport and held directorships in DBS Group Holdings Ltd, The Development Bank of Singapore Ltd, PSA Corporation Ltd and the Casino Regulatory Authority of Singapore.

Mr Chan was awarded the Public Administration Medal (Gold) in 2002.



## Board of Directors



### Mr Eric Gwee Teck Hai

Mr Eric Gwee Teck Hai, 72, is a non-executive independent Director of Singapore Power Limited. He was appointed on 1 January 2001. He is also a Director of SP AusNet\*. He retired as Chairman of SP Services Limited in July 2010.

Mr Gwee is also a Director of WorleyParsons Ltd. He was the Chairman of the Board of Governors for the Institute of Technical Education (ITE) and the Public Transport Council until 2001. He retired as Director of Melbourne Business School Ltd in May 2010.

For his many years of dedicated service to the community, Mr Gwee was awarded the Public Service Star in 1994 and the Public Service Star (Bar) [BBM(L)] in 2004. He was also honoured with the Meritorious Service Medal in 2007.



### Mr Ho Tian Yee

Mr Ho Tian Yee, 59, is a non-executive independent Director of Singapore Power Limited. He joined the Board on 1 May 2003 and is also a Director of SP AusNet\*.

Mr Ho is the Managing Director of Pacific Asset Management (S) Pte Ltd. He holds directorships in publicly-listed companies including Fraser and Neave, Limited, Singapore Exchange Limited, and is recently appointed to the Board of DBS Group Holdings and DBS Bank Ltd. In non-listed companies, he is the Chairman of Times Publishing Limited and a Director of Fullerton Fund Management Co. Ltd.

Mr Ho was awarded the Public Service medal in 1997.

## Board of Directors



### Mr Tan Chee Meng, SC

Mr Tan Chee Meng, 54, is a non-executive independent Director of Singapore Power Limited. He was appointed on 1 August 2005. He was appointed to the Board of SPI (Australia) Assets Pty Ltd on 1 September 2010. Previously, Mr Tan was a Director of SP PowerAssets Limited and PowerGas Limited.

Mr Tan is the Deputy Managing Partner of WongPartnership LLP. He was appointed Senior Counsel in January 2006 and is a Fellow of the Singapore Institute of Arbitrators and an Accredited Adjudicator of the Singapore Mediation Centre. He is a Regional Panel Arbitrator of the Singapore International Arbitration Centre and is on the Panel of Accredited Arbitrators of Badan Arbitrase Nasional Indonesia.

Mr Tan is also a board member of Urban Redevelopment Authority, Jurong Town Corporation, St Gabriel's Foundation, All Saints Home, WOPA Services Pte Ltd, Mapletree Commercial Trust Management Ltd and Mun Siong Engineering Ltd.



### Mr Bobby Chin Yoke Choong

Mr Bobby Chin Yoke Choong, 59, is a non-executive independent Director of Singapore Power Limited. He was appointed on 23 January 2006.

Mr Chin serves on the boards of the Competition Commission of Singapore, Singapore Labour Foundation and is the Chairman of Singapore Totalisator Board. He is a Director of several listed companies including Oversea-Chinese Banking Corporation Limited, AV Jennings Limited, Yeo Hiap Seng Ltd, Ho Bee Investment Limited, Neptune Orient Lines Limited and Sembcorp Industries Ltd. He also sits on the Board of Trustees of the Singapore Indian Development Association (SINDA). He was appointed to the Council of Presidential Advisers in January 2010.

Mr Chin was the Managing Partner of KPMG Singapore from 1992 to 2005. He served as Chairman of the Urban Redevelopment Authority from April 2001 to March 2006.

In 2003, Mr Chin was awarded the Public Service Medal.

## Board of Directors



### **Prof Jeremy Guy Ashcroft Davis AM**

Prof Jeremy Guy Ashcroft Davis, 68, is a non-executive independent Director of Singapore Power Limited. He was appointed on 1 August 2006 and is also a Director of SP AusNet\*.

Prof Davis is the Chairman of UNSW Professorial Superannuation Pty Ltd and the Deputy Chairman of AMWIN Management Pty Ltd. He currently serves as a Director of the Transurban Group, CHAMP Ventures Pty Ltd, Australian Institute of Management NSW & ACT Ltd and Asian Renewable Energy Management Ltd.

He was the former AMP Society Professor at the Australian Graduate School of Management. Prof Davis spent ten years as a management consultant with the Boston Consulting Group. He also served as a Director of the Australian Stock Exchange from 1990 to 1996, and as a Director and Chairman of AIDC Limited and Amdel Holdings Pty Ltd.



### **Mr Choi Shing Kwok**

Mr Choi Shing Kwok, 52, is a non-executive independent Director of Singapore Power Limited. He was appointed on 1 August 2006. He is the Permanent Secretary of the Ministry of Transport.

He was formerly a Director of Singapore Technologies Electronics Limited, Sembawang Resources Development Corporation Ltd, Singapore Automotive Engineering Ltd and Chartered Ammunition Industries Pte Ltd. He has also served as a member of the National University of Singapore Council, the Singapore Broadcasting Authority and the Jurong Town Corporation.

Mr Choi was awarded the Meritorious Service Medal in 2000, and the Long Service Award (25 years) in 2004 by the Government of Singapore, and has also received state awards from foreign governments.

## Board of Directors



### **Mrs Oon Kum Loon**

Mrs Oon Kum Loon, 60, is a non-executive independent Director of Singapore Power Limited. She was appointed on 1 April 2010. Mrs Oon was appointed to the Boards of SP PowerAssets Limited and PowerGas Limited on 1 September 2010.

Mrs Oon's other directorships include Keppel Corporation Limited, Keppel Land Limited and Aviva Ltd.

Mrs Oon has approximately 30 years of extensive experience with DBS Bank Ltd. She was the Chief Financial Officer of the Bank before she retired in 2003. Prior to serving as Chief Financial Officer, she was the Managing Director and Head of Group Risk Management.



### **Tan Sri Mohd Hassan Marican**

Tan Sri Mohd Hassan Marican, 58, is a non-executive independent Director of Singapore Power Limited. He was appointed on 15 February 2011.

Tan Sri Hassan currently sits on the boards of Lambert Energy Advisory Limited, Regional Economic Development Authority (RECODA), Sarawak, Sarawak Energy Berhad and publicly-listed company Sembcorp Industries Ltd.

Previously, Tan Sri Hassan served as the Chairman of Malaysia International Shipping Corporation Berhad, Petronas Gas Berhad, Petronas Dagangan Berhad, Engen Limited – South Africa and Kumpulan Wang Amanah Negara. He was formerly the President and Chief Executive Officer of Petrolim Nasional Berhad (PETRONAS) as well as its Acting Chairman. Tan Sri Hassan has also served on the boards of Bank Negara Malaysia, East Coast Economic Region (ECER) Development Council and Malaysia Thailand Joint Development Authority.

Tan Sri Hassan was awarded the Federal title Tan Sri (P.S.M.) in 1997, Commandeur De La Legion D'Honneur Republic of France in 2000 and The Friendship Medal (First Class) The Socialist Republic of Vietnam in 2001.

## Board of Directors



### Mr Ng Yat Chung

Mr Ng Yat Chung, 49, is a non-executive Director of Singapore Power Limited. He was appointed on 1 April 2010. Mr Ng was appointed to the Board of SPI (Australia) Assets Pty Ltd on 15 September 2010.

Mr Ng joined the NOL Group Board of Directors as Executive Director on 2 May 2011.

Prior to joining NOL, Mr Ng was a Senior Managing Director at Temasek Holdings (Private) Limited. Previously, he was the Chief of Defence Force in the Singapore Armed Forces (SAF). During his career in the SAF, Mr Ng served in various senior command and staff positions in planning, operations and logistics. His major assignments included Chief of Staff (Joint Staff) and Chief of Army.

Mr Ng is the Chairman of the Board of Trustees for the Singapore Institute of Technology and a Trustee of the National University of Singapore. He was also a Director of PSA Corporation Ltd, ST Aerospace Supplies Pte Ltd, publicly-listed Singapore Technologies Engineering Ltd, Singapore Technologies Kinetics Ltd, Singapore Technologies Electronics Limited and Fraser and Neave, Limited.



### Mr Quek Poh Huat

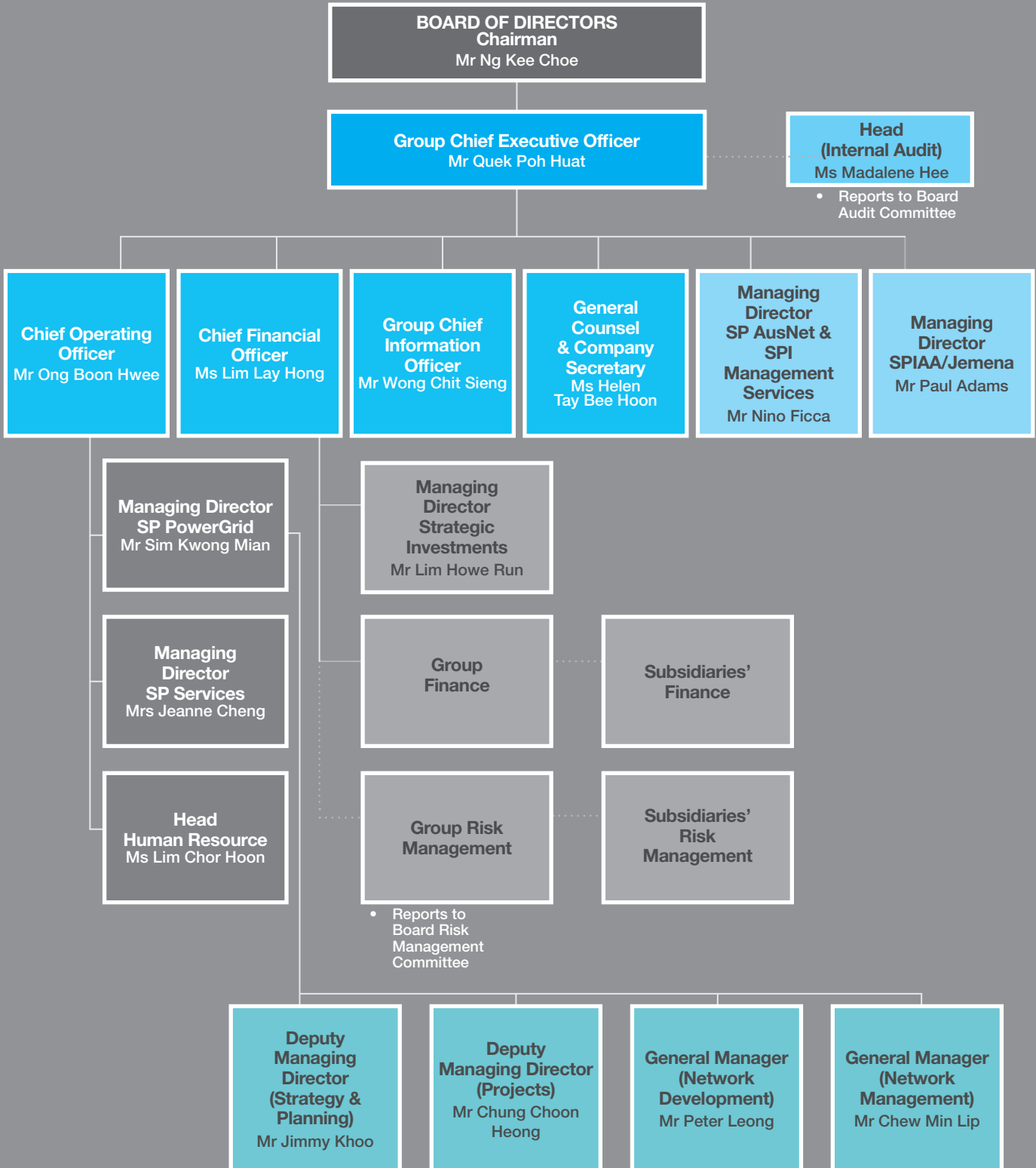
Mr Quek Poh Huat, 64, was appointed a Director of Singapore Power Limited in November 2001 and Group Chief Executive Officer in May 2004. Within the Singapore Power Group, Mr Quek serves as Director on the boards of SP PowerAssets Limited, PowerGas Limited and SP Services Limited. He is currently Chairman of SP PowerGrid Limited, SPI Management Services Pty Ltd, SPI (Australia) Assets Pty Ltd and Enterprise Business Services (Australia) Pty Ltd.

Mr Quek is also a Board Director of publicly-listed Singapore Technologies Engineering Ltd and Chairman of Singapore Technologies Kinetics Ltd.

Mr Quek is Singapore's non-resident Ambassador to Sweden. He was conferred the Public Service Star in 1994.

\* A stapled group comprising SP Australia Networks (Transmission) Ltd, SP Australia Networks (Distribution) Ltd and SP Australia Networks (Finance) Trust, acting through its responsible entity, SP Australia Networks (RE) Ltd. It is dual-listed on the Australian Stock Exchange and the Singapore Exchange Securities Trading Limited.

# Organisational Structure



# Corporate Governance

## ETHICS & ACCOUNTABILITY

The SP Board is committed to good corporate governance. The Group adheres closely to the principles set out in the revised Code of Corporate Governance 2005 (the Code) for listed companies.

The Company has adopted the Code as its guide for best practice standards and put in place an internal framework to ensure good corporate governance in its business practices and activities. The Whistleblower Policy, implemented since 2005, seeks to strengthen ethical business conduct in the Group.

The Group endeavours to enhance shareholder value by ensuring the highest standards of corporate governance, transparency, accountability and integrity.

### Setting Directions

The Board provides broad strategic directions for the Group and undertakes key investment and funding decisions. In addition, the Board ensures that Management maintains a robust system of internal controls to protect the Group's assets and reviews the Group's financial performance. The Board meets at least four times a year to review the Group's business performance. In the last financial year, the Board met three times and held a Board Strategic Review in November 2010.

### Access to Information

The Board is provided with relevant information prior to Board meetings and on an ongoing basis. Board papers include management financial reports, annual budgets and performance against budget, announcement of results, matters requiring the Board's decision, updates on key outstanding issues and disclosure documents as well as updates on new legislative developments.

Newly appointed Board Directors attend an orientation programme to familiarise themselves with the Group's business and governance practices.

The Board has separate and independent access to the Senior Management and the Company Secretaries. Should the Directors, whether as a group or individually, require independent professional advice to carry out their duties, the Company will arrange to appoint, at the Company's expense, professional advisors to render due advice.

### Accountability

In presenting the annual financial statements to the shareholder, the Board aims to provide the shareholder with a balanced and comprehensive assessment of the Group's position and prospects.

Management provides the Board with appropriately detailed management accounts of the Group's performance, prospects and a risk dashboard on a monthly basis.

There is a strong element of independence in the Board composition with independent non-executive Directors constituting three-quarters of the entire Board.

The independence of each Director is reviewed annually by the Nominating Committee in accordance with the Code.

The current size of 12 Board members is appropriate for effective decision-making, taking into account the scope and nature of the Group's operations. Collectively, the Directors have a wealth of expertise and experience in the management of business at senior and international levels.

### Board Committees

The SP Board is supported by specialised board committees to facilitate effective supervision of Management. These are the Audit Committee, the Board Risk Management Committee, the Finance Committee, the Nominating Committee and the Staff Development and Compensation Committee respectively.

As and when required for specific projects, special board steering committees and due diligence committees are formed to provide support and guidance to Management.

SP AusNet, as a publicly-listed stapled entity on the Australian Securities Exchange and the Singapore Exchange Securities Trading Limited, has established its own Audit and Risk Management Committee, Nomination Committee, Remuneration Committee as well as Compliance Committee to ensure a high standard of corporate governance.

### Audit Committee

The Audit Committee (AC) comprises three non-executive Directors, all of whom are independent Directors as defined in the Code, and a co-opted external member. The Board is of the view that the members of the AC have the financial management expertise and experience to discharge the AC's responsibilities.

# Corporate Governance

The main function of the AC is to assist the Board in discharging its statutory and oversight responsibilities relating to the financial reporting and audit processes, the systems of internal controls and the process of monitoring compliance within applicable laws, regulations and codes of conduct.

The AC is responsible for the following:

- Review and approval of the audit plans of external and internal auditors;
- Review of the adequacy of the internal audit function;
- Review of the financial accounts of the Group and the Company;
- Review of the independence and objectivity of the external auditors; and
- Nomination of external auditors for re-appointment.

The AC holds at least three meetings a year.

Its members are:

Mr Bobby Chin Yoke Choong (Chairman)

Mr Tan Chee Meng

Mr Choi Shing Kwok

Mr Timothy Chia Chee Ming (co-opted external member)

## **Board Risk Management Committee**

The Board Risk Management Committee (BRMC) comprises four Directors, three of whom are independent non-executive Directors, and a co-opted external member. The BRMC assists the Board in fulfilling its oversight responsibilities by reviewing:

- The types and levels of business risks that the Company, its subsidiaries and associated companies undertake on an integrated basis to achieve their business strategy; and
- The policies, procedures and methodologies for identifying, assessing, quantifying (where appropriate), monitoring and managing risks.

The BRMC is supported by the Group Risk Management Office in its governance of SP Group risks.

Although the risk management responsibilities of the Board are executed through the organisational set-up mentioned above, the ultimate risk ownership rests with the business groups.

The BRMC meets at least three times a year.

Its members are:

Mr Ho Tian Yee (Chairman)

Mr Tan Chee Meng

Mrs Oon Kum Loon

Mr Paul Chan Kwai Wah (co-opted external member)

Mr Quek Poh Huat (ex-officio)\*

## **Finance Committee**

The Finance Committee (FC) comprises five Directors, two of whom are independent Directors. The FC assists the Board in reviewing proposed mergers, acquisitions, divestments and corporate restructuring and financing for the SP Group.

The responsibilities of the FC are to:

- Consider and recommend, for the Board's approval, SP's annual operating and capital expenditure budgets, and business and financing plans;
- Approve or endorse mergers, acquisitions, divestments or corporate restructuring;
- Approve or endorse SP's borrowing and financing related matters; and
- Approve or endorse such other matters from time to time as provided for in the SP Authority Manual.

The FC holds at least two meetings a year.

Its members are:

Mr Ng Kee Choe (Chairman)\*

Mr Eric Gwee Teck Hai

Mr Ho Tian Yee

Mr Ng Yat Chung\*

Mr Quek Poh Huat (ex-officio)\*

## **Nominating Committee**

The Nominating Committee (NC) comprises three Directors. The Chairman of the NC is an independent non-executive Director. The NC is responsible for formulating policies and guidelines on matters relating to Board



# Corporate Governance

appointments, re-appointments, retirement and rotation of Directors. The Directors' performance, contribution and independence are taken into consideration in the NC's review and assessment.

The NC, in consultation with the Chairman of the Board, considers and makes recommendations to the Board concerning the appropriate size and needs of the Board. New Directors are currently appointed by way of a Board resolution after the NC has endorsed their appointment. New Directors must submit themselves for re-election at the next Annual General Meeting (AGM) of the Company, pursuant to the Articles of Association of the Company. The Articles of Association of the Company also require not less than one-third of Directors to retire by rotation at every AGM.

The NC meets at least twice a year.

Its members are:

Mr Alan Chan Heng Loon (Chairman)

Mr Ng Kee Choe\*

Mr Quek Poh Huat\*

## Staff Development and Compensation Committee

The Staff Development and Compensation Committee (SDCC) comprises three Directors, two of whom are independent Directors. The SDCC oversees the remuneration of the Group Chief Executive Officer and senior executives. The SDCC establishes and maintains an appropriate and competitive level of remuneration to attract, retain and motivate senior executives to manage the Group successfully.

No Director is involved or has participated in any proceedings with respect to his own remuneration.

The SDCC meets at least twice a year.

Its members are:

Mr Ng Kee Choe (Chairman)\*

Mr Alan Chan Heng Loon

Mr Bobby Chin Yoke Choong

## Communication with Shareholder

The Company values communication and ensures that timely and adequate disclosures of material information on the Company are made available to its shareholder. It holds regular dialogue and liaison sessions with the shareholder.

## Board Composition

Board Members	Audit Committee	Board Risk Management Committee	Finance Committee	Nominating Committee	Staff Development & Compensation Committee
Mr Ng Kee Choe, Chairman*	-	-	Chairman	Member	Chairman
Mr Alan Chan Heng Loon	-	-	-	Chairman	Member
Mr Eric Gwee Teck Hai	-	-	Member	-	-
Mr Ho Tian Yee	-	Chairman	Member	-	-
Mr Tan Chee Meng	Member	Member	-	-	-
Mr Bobby Chin Yoke Choong	Chairman	-	-	-	Member
Prof Jeremy Guy Ashcroft Davis	-	-	-	-	-
Mr Choi Shing Kwok	Member	-	-	-	-
Mrs Oon Kum Loon	-	Member	-	-	-
Tan Sri Mohd Hassan Marican	-	-	-	-	-
Mr Ng Yat Chung*	-	-	Member	-	-
Mr Quek Poh Huat*	-	Ex-officio	Ex-officio	Member	-
Board Committee Members					
Mr Timothy Chia Chee Ming	Co-opted Member	-	-	-	-
Mr Paul Chan Kwai Wah	-	Co-opted Member	-	-	-

As at 21 April 2011 \*Non-independent

# Senior Management



**Mr Quek Poh Huat**

Mr Quek Poh Huat, Group Chief Executive Officer, is also Chairman of SP PowerGrid Limited, SPI Management Services Pty Ltd, SPI (Australia) Assets Pty Ltd and Enterprise Business Services (Australia) Pty Ltd, and a Director on the boards of Singapore Power Limited, SP PowerAssets Limited, PowerGas Limited and SP Services Limited.

Mr Quek has a Bachelor of Science (Chemical Engineering) degree with First Class Honours from the University of Leeds, UK and a Master of Science (Management) with Distinction from the Naval Postgraduate School, Monterey, US. He has also completed the Advanced Management Program at the Harvard Business School, US.



**Mr Ong Boon Hwee**

Mr Ong Boon Hwee, Chief Operating Officer, oversees SP's business units in Singapore as well as corporate services at the Group level. He also drives business development initiatives in the region.

Prior to joining SP, he was Temasek's Managing Director for Strategic Relations, and concurrently CEO of Temasek Management Services. Mr Ong is Director of ST Kinetics, Aetos Security Management and Singapore Institute of Management. He also serves on the committees of non-profit organisations such as the National Volunteer & Philanthropy Centre, A\*STAR and Temasek Foundation.

Mr Ong graduated from the National University of Singapore with a First Class Honours in Economics, and holds a Masters in Military Art & Science from the US Leavenworth General Staff College.



**Ms Lim Lay Hong**

Ms Lim Lay Hong is the Chief Financial Officer of the SP Group, where she is responsible for providing financial strategy and leadership. This includes overseeing the corporate finance, treasury, financial management, tax planning and risk management functions of the Group. She is also responsible for corporate planning and strategic investments and has oversight of the SP Group's overseas investments, including its Australia operations.

Prior to joining SP, Ms Lim held a number of management and executive positions in a Singapore bank.

Ms Lim holds a Bachelor of Accountancy degree from the National University of Singapore and a Master of Business Administration (Finance) from New York University.

# Senior Management



**Mr Sim Kwong Mian**

Mr Sim Kwong Mian, Managing Director, SP PowerGrid, has been with SP for 16 years. Prior to this, he was with the Public Utilities Board for 18 years.

Mr Sim represents Singapore in the Heads of ASEAN Power Utilities/Authorities (HAPUA), which leads the power interconnection project to link the member countries' electricity networks. Between June 2009 and May 2010, Mr Sim was Chairman of the HAPUA Council. He also represents Singapore as a council member in the Association of Electricity Supply Industry of East Asia and Western Pacific (AESIEAP).

Mr Sim is a registered Professional Engineer with the Professional Engineers Board, Singapore, and a Senior Member of the Institution of Engineers, Singapore. He holds a Bachelor of Engineering (Electrical) degree from the University of Singapore, a Master of Science (Technology) from the University of Manchester Institute of Science & Technology, UK, and a Diploma in Management Studies from the Singapore Institute of Management. He has also completed the Advanced Management Program at the Harvard Business School, US.



**Mr Nino Ficca**

Mr Nino Ficca, Managing Director, SPI Management Services, is also Managing Director, SP AusNet\*. He is a Director of SP Australia Networks (Transmission), SP Australia Networks (Distribution), SP Australia Networks (RE) and SP PowerGrid.

Mr Ficca has worked in the energy industry for over 25 years, including in a number of senior management roles. He is a Director of the Energy Networks Association (ENA) and was previously Director and Deputy Chairman of the Energy Supply Association of Australia until December 2007. Mr Ficca holds a Bachelor of Engineering (Electrical) Honours degree and a Graduate Diploma in Management from Deakin University, Australia. He has also completed the Advanced Management Program at the Harvard Business School, US.



**Mr Paul Adams**

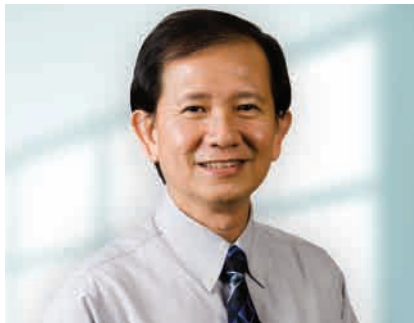
Mr Paul Adams was appointed Managing Director of SPIAA/Jemena Ltd in November 2008. He was previously General Manager, Network Services Group at SP AusNet\*.

Mr Adams has a breadth of experience having worked in various roles in the electricity and gas industries for more than 25 years, including transmission, distribution, generation, trading and retailing.

Mr Adams holds a Bachelor of Engineering Degree (First Class Honours) and a Graduate Diploma of Financial Management. He has completed courses in Leading Change and Organisational Renewal (Harvard), Executive Development Program (Australian Graduate School of Management) and Company Directors Course (Australian Institute of Company Directors). Mr Adams is also a Director of the Energy Networks Association of Australia, Fellow of the Australian Institute of Management and Fellow of the Institution of Engineers (Australia).

\* A stapled group comprising SP Australia Networks (Transmission) Ltd, SP Australia Networks (Distribution) Ltd and SP Australia Networks (Finance) Trust, acting through its responsible entity, SP Australia Networks (RE) Ltd. It is dual-listed on the Australian Stock Exchange and the Singapore Exchange Securities Trading Limited.

# Senior Management



**Mr Wong Chit Sieng**

Mr Wong Chit Sieng, Group Chief Information Officer, oversees the group-wide delivery of Information and Communications Technology applications and services for SP's Singapore and Australia businesses. He has over 30 years' experience in strategic business IT planning and the development and management of banking and utilities application systems.

Prior to his appointment as Group Chief Information Officer, Mr Wong was Head (Information Systems), Singapore Power Ltd, and Managing Director, SP Services. Before joining SP, Mr Wong was Director of Operations and Principal Consultant, Asia Pacific & Japan, at a US banking software company. He was also with the Overseas Union Bank for nine years as its Senior Vice President & Deputy CIO, and Vice President of Chase Manhattan Bank for 10 years.

Mr Wong has a Bachelor of Business Administration with Distinction and a Master of Business Administration from the Royal Melbourne Institute of Technology, Australia. He also graduated from the Harvard Business School's Advanced Management Program in 2009.



**Mrs Jeanne Cheng**

Mrs Jeanne Cheng was appointed Managing Director of SP Services Ltd in September 2009. In her nine years with SP Services, she helped establish the company in its new role as the market support services licensee, with the restructuring of the electricity market in 2003.

Mrs Cheng has been with the SP Group for more than 15 years and has held senior positions in Corporate Communications and Business Development.

Prior to joining the SP Group, Mrs Cheng worked as a media and communications specialist in both private and public sector entities.

Mrs Cheng graduated from the National University of Singapore with a degree in Economics. She was awarded the Public Service Medal in 2009 for her community work.



**Mr Lim Howe Run**

Mr Lim Howe Run, Managing Director, Strategic Investments, is responsible for the strategic development and stewardship of SP's overseas investments.

Prior to his appointment as Managing Director, he held various positions in general management, risk management, asset management and business development within the Group. Mr Lim holds a Bachelor of Engineering (Mechanical) degree from the National University of Singapore.

# Senior Management



**Ms Helen Tay Bee Hoon**

Ms Helen Tay Bee Hoon, General Counsel & Company Secretary, provides legal advice on the Group's major projects and transactions. She also assists the Board in the formulation and implementation of policies involving board governance.

Prior to joining SP, Ms Tay was Director, Legal & Regulations, at Temasek Holdings. In her legal career of more than 20 years, Ms Tay has held several key legal and corporate secretarial positions in the Singapore Technologies/SembCorp Group including Head – Legal and Company Secretary of the SembCorp Logistics Group. She has also served in private practice for several years.

Ms Tay holds a Bachelor of Law degree with Honours from the National University of Singapore and is a member of the Singapore Bar.

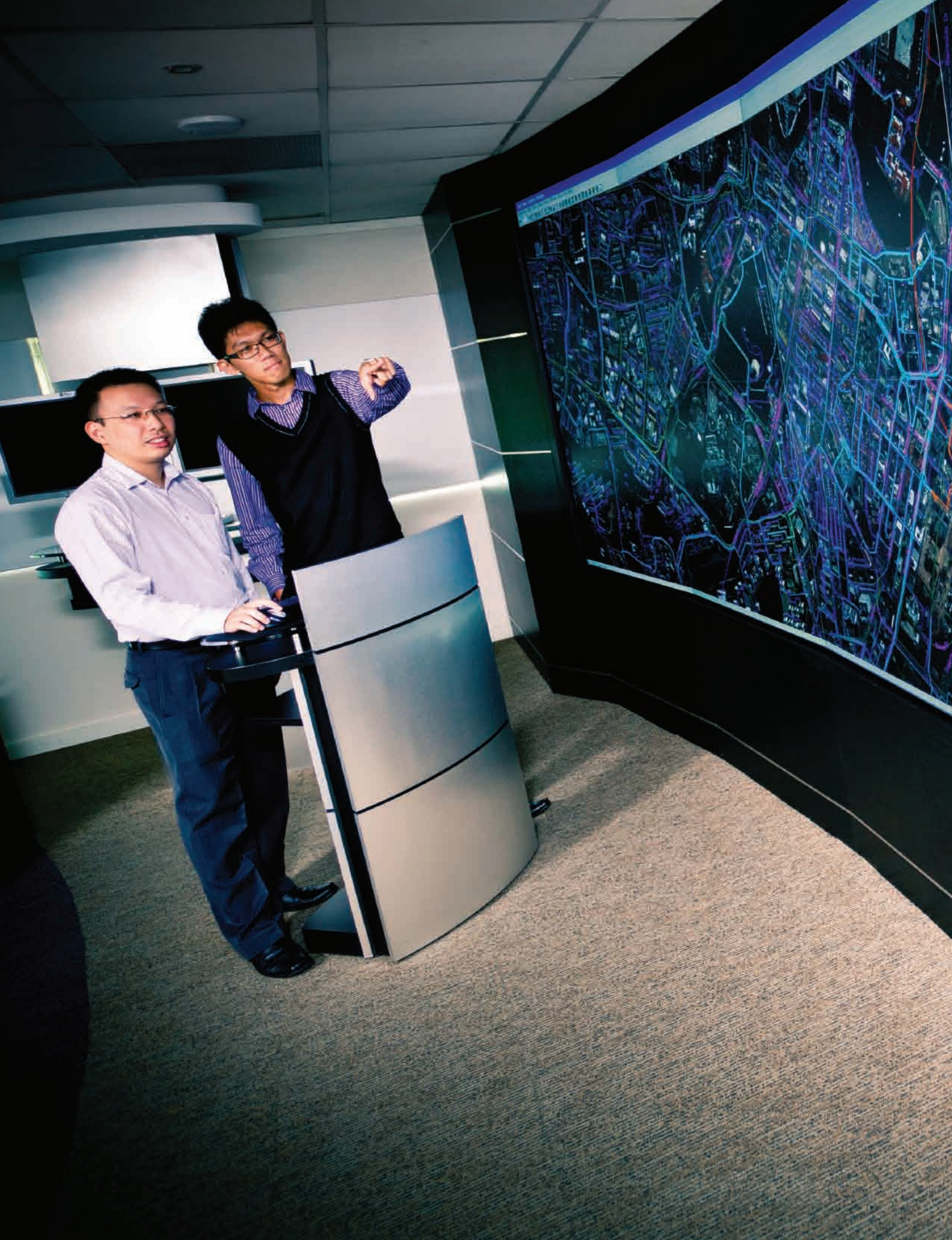


**Ms Lim Chor Hoon**

Ms Lim Chor Hoon, Head (Human Resource), has over 20 years' experience in human resource. Ms Lim is overall responsible for the Human Resource policies and programmes of SP.

Before joining the Group, she was with the NOL Group as Vice President, Talent Management and Global Learning and Development and Temasek Holdings as Director, Human Resource. She has also worked in GuocoLand Limited, United Overseas Bank Group, and the National University of Singapore.

Ms Lim holds a Bachelor of Science in Psychology from the University of Wisconsin at Madison and a Graduate Diploma in Personnel Management.





# Operations Review

## Singapore Operations

Our Singapore operations have four main business units – SP PowerAssets, PowerGas, SP PowerGrid and SP Services. Other subsidiaries include a training and consultancy services arm – SP Training and Consultancy Company – as well as Singapore District Cooling and SP Telecommunications.

# Operations Review

## SP POWERASSETS

### ENERGISING SINGAPORE'S ELECTRICITY INFRASTRUCTURE

SP PowerAssets owns the electricity transmission and distribution assets in Singapore. Its S\$7.3-billion fixed assets base comprises modern and robust networks at 400kV, 230kV and 66kV for transmission, and 22kV, 6.6kV and 400V for distribution.



*An engineer checking a 66kV switchboard.*



# Operations Review

In FY 10/11, SP PowerAssets continued to plan ahead to meet Singapore's growing power needs.

Network infrastructure projects to expand our capacity have been commissioned, and existing transmission assets have been progressively upgraded and replaced to ensure the sustainability of the electricity grid's track record of high reliability:

- A new 66kV substation at Banyan Drive has been commissioned to provide supply to the extensive petrochemical industrial developments in Jurong Island.
- A new 66kV substation at Tuas has been commissioned to provide supply to the industrial developments at the Tuas View Extension.
- As part of an ongoing network renewal programme for existing 66kV substations, the International Road and Pulau Ayer Merbau substations have been commissioned.

The development of the new 400kV substation at Rangoon Road is in progress. Scheduled to be commissioned by December 2014, it will serve as a power injection node for bulk power transmission to the load centres in Central Singapore, and will help meet the rapid growth in demand.

Two 230kV substations at Marina South and Tembusu are under construction. The Marina South substation is scheduled to be commissioned in 2012. This substation will serve as another primary power source supplying to Marina South's future downtown area needs.

New 230kV switchboards to replace existing ones at Tampines and Choa Chu Kang substations were completed.

SP PowerAssets is working closely with the Economic Development Board (EDB), the Jurong Town Corporation (JTC), the Urban Redevelopment Authority (URA) and the Energy Market Authority (EMA) on the proposed 230kV substation at Tembusu, Jurong Island. This substation is scheduled for completion in first quarter 2014, and will cater for new customer connections, as well as manage fault-level margins for distributed generation (DG) connections on Jurong Island.

In addition, the development of a major cable tunnel for the future installation of transmission cables on Jurong Island is in progress.

The development of two major cable tunnels in Singapore, the 16.5km East-West tunnel and the 18.5km North-South tunnel, has commenced. When completed, they will provide secure corridors for faster and more efficient transmission cable installation.

These two cable tunnels will also enable the orderly and controlled replacement of ageing 230kV circuits.



*SP PowerGrid achieves excellent network performance due to its strategic use of state-of-the-art equipment and condition monitoring technology.*

# Operations Review

## POWERGAS

### DEVELOPING THE GAS NETWORK

PowerGas owns Singapore's gas transmission and distribution networks, and is the nation's sole licensed gas transporter and system operator. Among PowerGas's network assets are two onshore natural gas receiving facilities and 3,200km of underground town gas and natural gas pipelines.



*PowerGas plays a pivotal role in the efficient and reliable delivery of natural and town gas to customers.*

# Operations Review

## Gas Network Extension and Reinforcement

In FY 10/11, PowerGas extended the natural gas network by 1.3km and successfully connected one new transmission customer and two new distribution customers.

The town gas network was also extended by 42km, reaching more customers in new public housing estates, as well as private residential and commercial premises.

## New Transmission Infrastructure Development

PowerGas has been working closely with EMA and Singapore Liquefied Natural Gas Corporation Pte Ltd (SLNG Corp) to connect the proposed LNG Terminal to the existing transmission networks.

Pipe-laying works and construction work for gas offtake stations on Jurong Island and Tuas South, which include a submarine pipeline crossing the West Jurong Channel, are in progress.

The first phase of the project is scheduled to be completed by end-2012.



Calibration of gas meters being conducted at the Meter Laboratory.



The ultrasonic meter measures natural gas volumes.

# Operations Review

## SP POWERGRID MANAGEMENT



**Mr Sim Kwong Mian**  
Managing Director



**Mr Jimmy Khoo**  
Deputy Managing Director  
(Planning and Strategy)



**Mr Chung Choon Heong**  
Deputy Managing Director (Projects)



**Mr Peter Leong**  
General Manager  
(Network Development)



**Mr Chew Min Lip**  
General Manager  
(Network Management)



**Mr Han Tek Fong**  
General Manager  
(Planning and Asset Management)



**Dr Yoon Kok Thean**  
General Manager (Procurement)



**Mr Law Chin Ho**  
Head (Regulatory)



**Ms Loong Hui Chee**  
General Manager (Finance)

# Operations Review

## SP POWERGRID

### ACHIEVING WORLD-CLASS NETWORK PERFORMANCE

SP PowerGrid manages the electricity and gas transmission and distribution networks in Singapore.



*SP PowerGrid's expertise spans the planning and design of Singapore's fully underground grid and gas networks.*

# Operations Review

## **Network Performance – Electricity**

SP PowerGrid's network performance in FY 10/11 was well within the set targets.

The consistent performance was attributed to diligent condition monitoring to avert potential failures and condition-based maintenance of the network.

For FY 10/11, the network performance indicators – System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) – were 0.7 minute and 0.04 interruption per customer per year respectively.

## **Network Performance – Gas**

Gas network performance for FY 10/11 was well within regulatory targets.

Gas SAIDI and SAIFI scores were 0.313 minute and 0.0025 interruption respectively.

SAIDI measures the average duration of unplanned electricity or gas interruptions a consumer experiences in a year. As for SAIFI, it measures the average number of such interruptions in a year.

## **Smart Grid Developments**

The Smart Grid has become a focus in Singapore during the year in review. This increasingly important innovation has been driven globally by the need to develop sustainable solutions for the reduction of carbon emissions and improvement of energy efficiency. The solutions have also been made possible by the rapid pace of technological advancement in info-communications and computer technologies.

SP PowerGrid is continuing its momentum on the following smart grid initiatives:

- **Enhancing existing intelligent systems**

SP PowerGrid is building upon its existing SCADA (Supervisory Control & Data Acquisition system) to monitor 6.6kV substations as well as to extend its successful online partial discharge monitoring system to cover more substations.

- **Participation in the Intelligent Energy System Initiative**

SP PowerGrid is working closely with the Energy Market Authority (EMA) on the Intelligent Energy System (IES) project. The IES pilot project, located in the Nanyang Technological University over a period of three years, seeks to test and evaluate new applications and technologies around a smart grid. SP PowerGrid will gain in-depth knowledge and experience regarding the project's development and eventual implementation of Smart Grid technologies.

- **Collaborating with research institutes and industry partners**

SP PowerGrid is also collaborating with various research institutes and industry partners such as A\*Star to develop Smart Grid solutions, and increase its technical know-how in the process. One key area is in the Smart Energy Challenge (SEC) Project to develop an initial Cyber security blueprint architecture for electric vehicle (EV) charging infrastructure. The solutions or Intelligent Electronic Devices developed will ensure that the data transfer is secure, preparing our network for a future EV roll-out.

- **Conducting EV trials**

SP PowerGrid will work with partners to acquire three electric commercial vehicles, as part of their operational fleet, for trials. The trial aims to test the requirements and performance of EVs and examine the integration of EVs with operational IT systems. Data collected would be important to prepare for the eventual significant introduction of EVs in Singapore.

## **Condition Monitoring for Better Performance**

In FY 10/11, SP PowerGrid continued to extend its online monitoring capability to transmission substations and transformers.

# Operations Review



*Cutting-edge Oscillating Wave Test equipment helps engineers monitor the condition of high voltage cables.*

Two 230kV substations – Tampines and Choa Chu Kang – have been commissioned with an online partial discharge monitoring system. Two other 230kV substations at Labrador II and Ayer Rajah II have also been retrofitted with online condition monitoring systems.

In addition, six power transformers and shunt reactors at Paya Lebar I, Paya Lebar II, Ayer Rajah and Pulau Seraya have been commissioned with an online dissolved gas analysis (DGA) monitoring system.

To date, a total of 17 transmission substations have been installed with online partial discharge monitoring systems, and 20 transmission transformers and shunt reactors with online DGA monitoring systems.

A technical study on the application of an Ultra High Frequency (UHF) sensor for partial discharge (PD) monitoring for extra high voltage (EHV) transformers was completed.

The UHF sensors were earlier installed at the Tampines Wafer 230kV substation (phase shift transformer) and the Labrador 230kV substation for trial purposes.

The usage of the sensors was endorsed by the Technical Engineering Practice Committee. By using the UHF PD sensor, SP PowerGrid's capability in condition monitoring EHV transformers will be further enhanced.

During the year, 25 potential failures on 22kV and 6.6kV cables were prevented by the Oscillating Wave Test System (OWTS).

Since its inception in January 2006, OWTS has successfully prevented a total of 132 potential cable failures.

In addition, 81 potential failures were removed from the network through our concerted efforts in condition monitoring. This has contributed to an enhanced network performance.

A pilot project to monitor the water level for gas syphons in areas prone to flooding was carried out during the year in review.

The wireless remote monitoring of the water level in these syphons will enable timely action to be taken quickly and efficiently, thereby preventing the pipes from being choked and averting any disruption to gas supply.

Prototypes were installed on-site to monitor water levels in the gas syphons.

## **Knowledge Sharing and Customer Management**

To educate our customers on the best practices in managing electrical systems to achieve good power reliability and quality, a two-day workshop was conducted

# Operations Review



Technicians dismantling 400kV circuit breaker mechanism for maintenance.

in 2010 to share with them SP PowerGrid's experience and practices in managing Singapore's electricity network.

The workshop was attended by engineers and plant managers from Singapore, as well as 31 delegates from six Association of Southeast Asian Nations (ASEAN) countries under the Heads of ASEAN Power Utilities/ Authorities (HAPUA).

In the year, meetings were held with all the Power Quality Interest Groups, consisting of the Semiconductor and Electronics Group, the Pharmaceutical Group, the Chemical and Petrochemical Group, the Banking and Finance Group and the Essential Services Group.

Specific concerns of the Groups were addressed, and experiences exchanged.

Voltage dip tests on our customers' essential equipment have been carried out to facilitate the planning for the implementation of power quality solutions.

SP PowerGrid engineers also visited our customers' installations to share with them good practices in mitigating voltage dips.

## **Grid-connected Distributed Generation (DG)**

The year 2010 saw a trend of more DG in the network – most notably Grid-connected Photovoltaic (PV) systems.

Compared to 2009, the numbers of PV applications have more than doubled.

Power Quality & Transient Management engineers worked closely with Licensed Electrical Workers (LEWs) in the technical evaluation phase to ensure that all power quality requirements are met before any of the DG is turned on.

## **Cable Jointing Apprenticeship Scheme**

Under the Cable Jointing Apprenticeship Scheme, the first batch of trainees would complete the one-year cable jointing course by mid-April 2011, becoming qualified Junior Cable Jointers.

The Junior Cable Jointers will be deployed to carry out low voltage cable jointing work, and will be progressively given on-the-job training on high voltage and extra-high voltage cable jointing.



# Operations Review

## **One-stop Service for Cables and Gas Pipe Diversion**

The MRT Diversion Unit provides a one-stop service for electricity and gas matters relating to the Downtown Lines, the Thomson Line and the Tuas West MRT Extension.

The unit works closely with the Land Transport Authority (LTA) and its contractors to minimise the extent of diversions, and prevent any damage to services during construction.

It is expected that a total of 200km of cables and pipes will be diverted in the next five years.

## **Cable and Gas Pipe Damage Prevention Programme**

SP PowerGrid has continued to engage owners regarding large-scale development projects that can affect our underground cables and gas pipes.

A Task Force comprising the Senior Management of SP PowerGrid, EMA and other agencies has been formed to spearhead cable and gas pipe damage prevention initiatives.

The year in review also saw SP PowerGrid's Cable Protection Management Teams (CPMT) hold regular meetings with agencies and their contractors to safeguard the underground services at construction sites. The CPMT has monitored a total of 42 sites.

## **Optical Digital Network and Communication Network Enhancement**

In FY 10/11, SP PowerGrid installed and commissioned a new Optical Digital Network (ODN) infrastructure, consisting of Digital Multiplexers at 12 substations.

This was to replace obsolete data retrieval multiplexers for SCADA and Energy Management Systems, as well as to further enhance security.

To improve the security and efficiency of the Metropolitan Area Network, the copper-lined pilot access networks for 66kV substations were upgraded to utilise optical fibre cables.



*With 29,000km of underground cables to safeguard, SP PowerGrid has to be vigilant where damage prevention of our utility infrastructure is concerned.*

This is an ongoing programme which is scheduled for completion in FY 11/12.

## **Wireless SCADA for 6.6kV Network**

The commissioning of the remote monitoring and control functions for 6.6kV substations with wireless SCADA is in progress.

Up until FY 10/11, a total of 905 substations have been equipped with wireless remote monitoring and control capabilities.

The remaining 95 substations will be commissioned in FY 11/12.

## **Security Review on 22kV and 6.6kV SCADA Systems**

During the year in review, a security review was conducted on the 22kV and 6.6kV SCADA systems with the Infocomm Technology Department (ITD).

# Operations Review

Security enhancement measures were implemented to address the possible risks pertaining to unauthorised access to the systems.

## **Operating the New Gas Market**

SP PowerGrid is operating the web-based Gas Transportation IT System Solution (GTSS), which manages the transportation of natural gas according to the rules of the Gas Network Code (GNC).

Since it came into effect on 15 September 2008 with the implementation of the GNC regime, the new gas market has been working well according to the rules of the GNC.

Up until 31 March 2011, there have been 15 GNC modification proposals approved by EMA, which require SP PowerGrid to carry out GTSS modifications.

SP PowerGrid has achieved all the GTSS Performance Level criteria set by the GNC.

No major issues have been encountered regarding nominations/scheduling, transportation services and imbalance settlements.

## **Inline Inspection of Gas Transmission Pipelines**

SP PowerGrid has completed the inline inspection of two gas transmission pipelines – from Sakra to Seraya in Jurong Island and from Jurong Pier to Tuas South.

Magnetic Flux Leakage technology was used to inspect the internal pipelines for signs of corrosion, coating defects and metal loss.

All the inspected pipelines were found to be in good condition.

## **Accelerated Mains Renewal Programme**

The year in review also saw SP PowerGrid embark on a five-year accelerated gas mains renewal programme to renew cast/ductile iron gas pipelines that are more than 40 years old.

Approximately 31km out of a total of 113km of gas mains were renewed or replaced with polyethylene pipes in FY 10/11.

## **ISO Certification**

SP PowerGrid first obtained its ISO 9001:2000 certifications in 2002. In FY09/10, it received ISO 9001:2008 certification for the development and management of its transmission and distribution networks, distribution control and customer services and its gas operations covering network management, projects and system operations.

These certifications affirm SP PowerGrid's institutionalised quality processes that drive consistently high performance standards.

## **Electricity Demand**

The growth in electricity demand in 2010 was underpinned by the year's strong domestic economic growth of 14.5%.

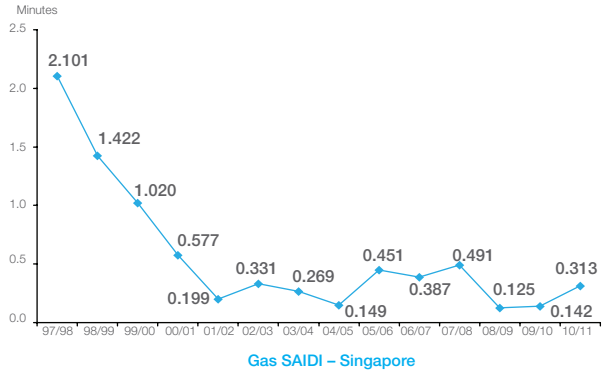
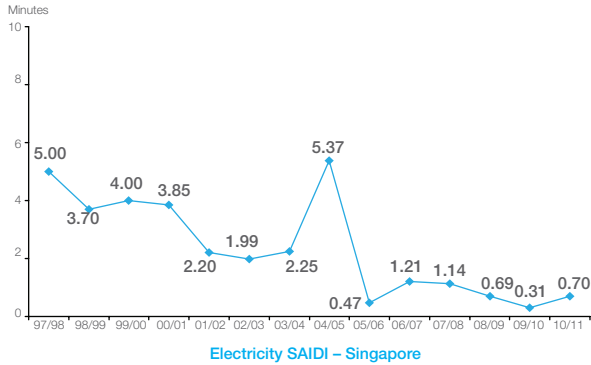
During the year in review, the volume of electricity transmitted and distributed rose by 5.2% to 41,304GWh.

The higher electricity consumption was driven by the strong rebound in the energy-intensive manufacturing sector, as well as the broad-based expansion of the service industries.

# Operations Review

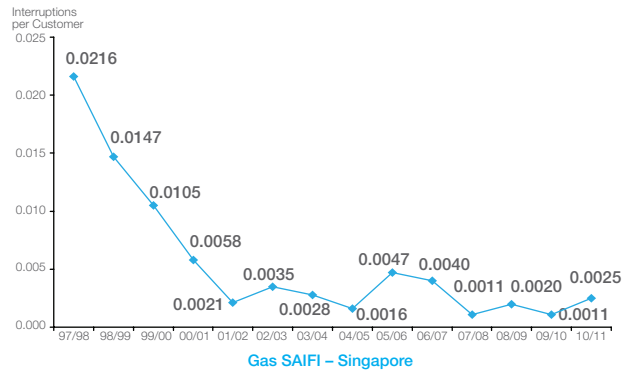
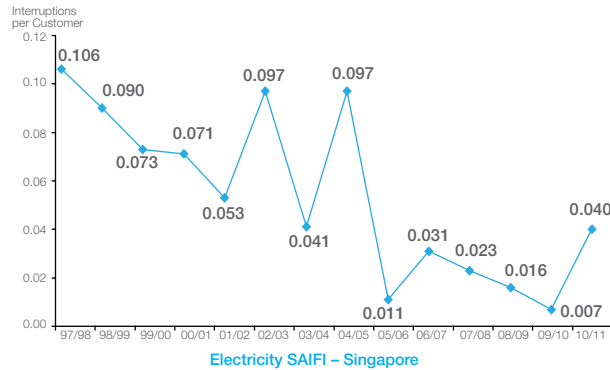
## SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI)

measures the average duration of unplanned interruptions a consumer experiences in a year

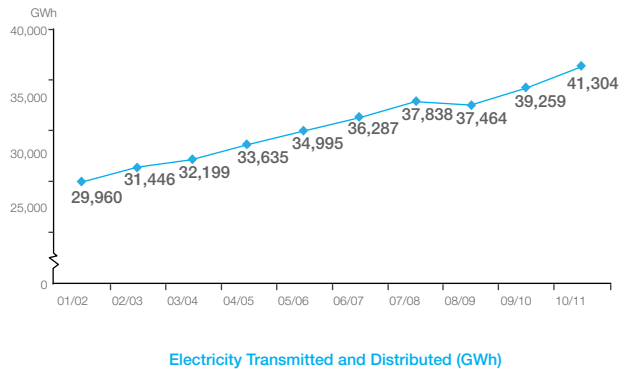
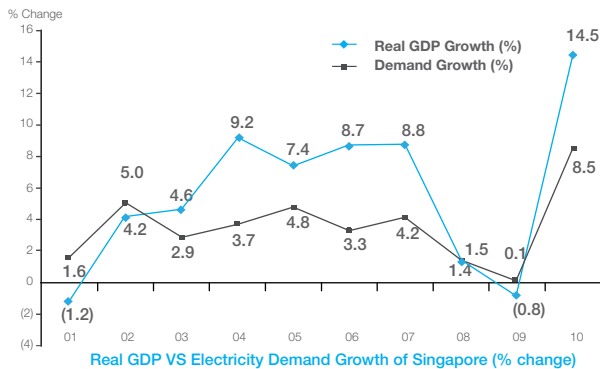


## SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX (SAIFI)

measures the average number of unplanned interruptions a consumer experiences in a year



## KEY NETWORK INDICATORS - SINGAPORE



Source: Singapore Department of Statistics

# Operations Review

## SP SERVICES MANAGEMENT



**Mrs Jeanne Cheng**  
Managing Director



**Mr Lawrence Lee**  
Director (Operations)



**Ms Shirley Tan Lee Cheng**  
Director (Customer Relationship  
Management)



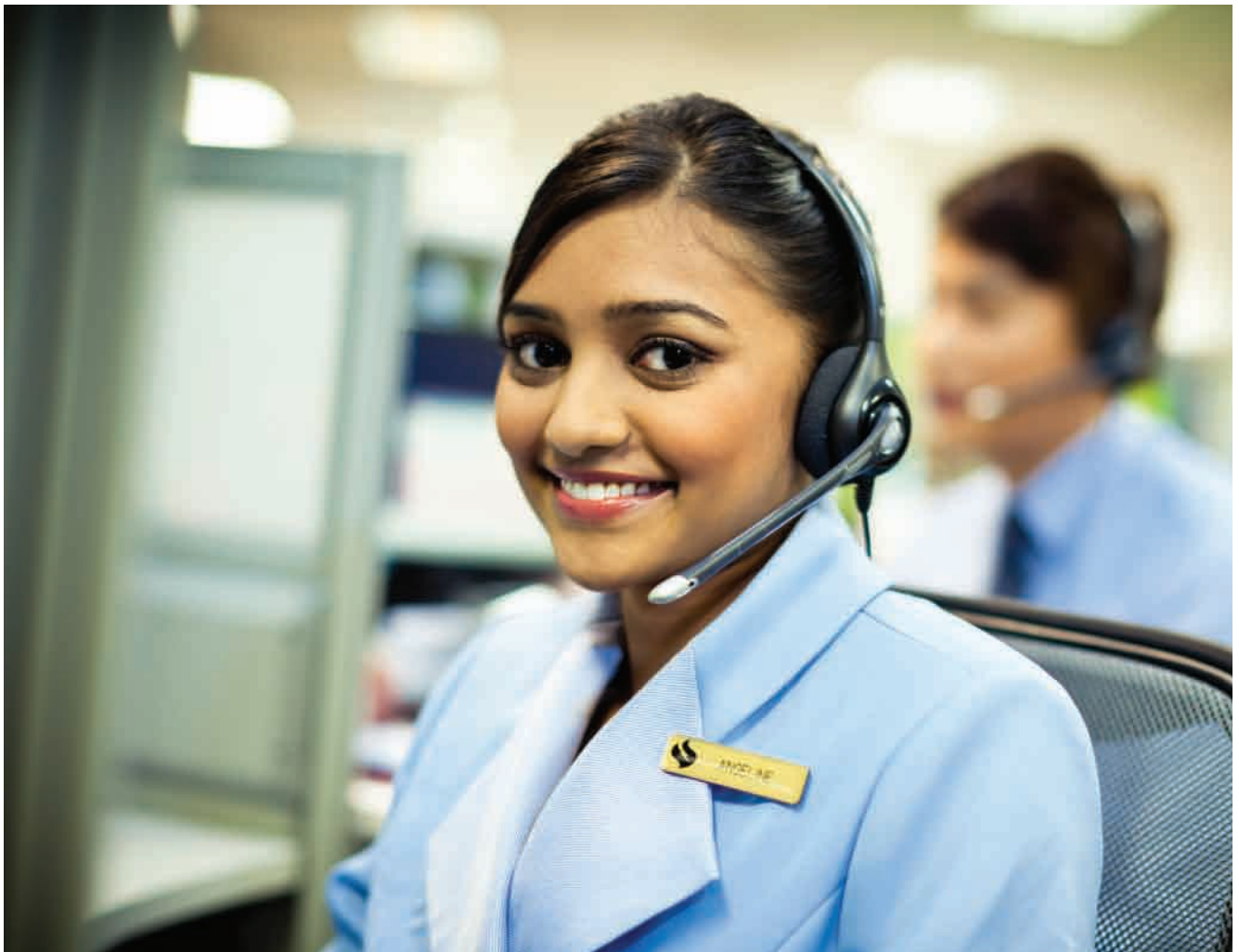
**Ms Lee Chui Ping**  
Director (Finance & Accounts)

# Operations Review

## SP SERVICES

**A CONVENIENT ONE-STOP CUSTOMER SERVICE FOR ALL UTILITY NEEDS**

SP Services provides every household and business in Singapore with a convenient and efficient one-stop service for electricity, water and piped gas supplies.



*Harnessing the power of technology and innovation to deliver efficient and responsive service, SP Services won the Most Innovative Use of Technology in a Contact Centre award.*

# Operations Review

As the Market Support Services Licensee in the deregulated electricity market in Singapore, SP Services provides meter reading, data management and billing services to the electricity market. It also processes consumer registrations and transfers for electricity retailers, thus playing a key role in facilitating competition and consumer choice in the retail market by enabling consumers to switch seamlessly between retailers, and to buy electricity at wholesale market prices.

For the convenience of customers, SP Services also provides metering, billing, payment collection, and customer service on behalf of other utility service providers, including PUB for water charges, CityGas for gas charges, and various refuse collection companies for refuse removal fees.

During the year under review, SP Services continued to improve its services and operations, while leveraging technology and innovation to enhance productivity. This enabled SP Services to cater to the evolving needs of customers, as well as their rising expectations.

## ***New Technology and Innovation***

By harnessing the power of new technology and innovation, SP Services reaped the multiple benefits of higher work efficiencies and greater convenience for its customers.

During the year in review, SP Services completed the enhancement of its Wireless Workforce Management System (WWMS) which enables technicians and meter readers to receive their daily job orders through their Personal Digital Assistants (PDAs). Upon completion of rigorous system integration and user acceptance tests, the enhanced WWMS went live in October 2010.

The wireless system minimises commuting time and enhanced punctuality in meeting customers. With real-time information and processing, appointment waiting time was reduced by one-third. Last-minute urgent appointments could also be accommodated.

The agility of the system in matching technicians to jobs based on skill sets, proximity, zoning location and the availability of manpower also resulted in faster turnaround time, job scheduling and activity reporting, thus improving customer service and productivity.

With the ability to upload and download real-time data through the mobile devices any time and anywhere, the technicians out in the field can now proceed to site directly from home without first reporting to the office in the morning, hence cutting down commuting time. This Work-From-Home Scheme which was introduced in 2010 has been extended to 47% of the field staff.

Likewise, customer service officers can now attend to customers' calls and emails from their homes, assessing the same IT systems to attend to enquiries from the customers, as well as to process transactions for customer service accounts remotely.

Through the Work-From-Home Scheme, SP Services extended its customer service operation beyond standard office hours, thus improving accessibility of its services to customers. The enhanced work processes also enabled SP Services to reap the multiple benefits of higher productivity, improved customer service and increased employee satisfaction, while reducing its carbon footprint by cutting down commuting time.

## ***Delivering Service Excellence***

The year in review also saw the introduction of an e-billing email alert service by SP Services. Customers who register for an online account can now receive a summary of their utilities charges monthly through the email as soon as their bills are ready for viewing. With a click, they can log on to their online account to view bill details and make payment. With e-billing, customers can access their current and past utility bills anywhere, any time, and at the same time opt to discontinue receiving paper bills.

SP Services also expanded its offering of SMS service initiatives by introducing free SMS reminder alerts to its customers. Customers will automatically receive an SMS reminder one day before the appointment date for the turning on or cutting off of supplies. The use of SMS communications have been extended to other services including meter reading submission, payment reminders, confirmation of account opening and closing. These new services have been well received by customers who appreciate the timely reminders.

# Operations Review

## Higher Customer Satisfaction

SP Services' passionate efforts to provide exceptional customer service were well appreciated. In its Annual Customer Satisfaction Survey, customer satisfaction ratings increased by 3 percentage points to 86% compared to that in 2008. Customers continued to rank SP Services as the best among major service providers in Singapore.

SP Services' commitment in delivering service excellence is also reaffirmed in the results of the benchmarking study conducted by leading international utility consultancy KEMA International during the year. SP Services has the lowest cost-to-serve per customer compared to major utility companies overseas while the service levels enjoyed by its customers were rated among the best. The study classified SP Services' performance level as international best practice. The survey findings also showed significant improvement in the rating of SP Services' efficiency compared to an earlier study by KEMA in 2007.

The year in review also saw SP Services successfully pass its ISO (International Organisation for Standardisation) yearly Surveillance Audit. The Audit findings revealed a high level of competency shown in various areas of work achieved through comprehensive training. SP Services was commended for its well-established quality control and effective processes.

The company's commitment towards service excellence was recognised at the 2010 International Contact Centre Awards organised by the Contact Centre Association of Singapore. SP Services clinched the Gold award in the Most Innovative Use of Technology in a Contact Centre category, having impressed the judges with its Work-From-Home-Scheme which leverages technology to drive greater efficiency and effectiveness in call centre operations, as well as in the Best Contact Centre Manager of the Year (above 100 seats) category.

## Major Projects

SP Services' efforts in upgrading its Market Support Services Licensee (MSSL) IT System with the aim of expanding current system capabilities to enhance customer service and operational effectiveness has progressed well, and is on schedule to go live in 2012. The upgraded system



*The enhanced Wireless Workforce Management System enables seamless communications between back office and field staff and improves customer service.*

will be able to support the growing contestable customer base and drive new efficiency through integration in the use of a common software platform.

In support of market liberalisation, SP Services participated actively in the Intelligent Energy System (IES) pilot project launched by the Energy Market Authority (EMA). The pilot project was aimed at testing and evaluating new applications and technologies around a smart grid, to enable the roll-out of more innovative solutions for Singapore's power system.

During the year, SP Services, together with SP Global Solutions, provided consultancy and training services to utility companies in the region, including China and India. In the year ahead, SP Services will continue to provide advisory services to companies looking to improve their customer service management expertise.

## Moving Forward

Going forward, SP Services will continue to explore ways to further improve its customer service and operational efficiency, while managing rising business costs. Leveraging new technology and developing the full potential of its people to complement innovations in systems and processes will be the key thrusts for SP Services in the years ahead.

## Operations Review

### SP TRAINING AND CONSULTANCY COMPANY

#### CROSSING BORDERS

SP Training and Consultancy Company (SPTCC) focuses on providing training and consultancy services for the utility sector.



*SPTI instructor conducting Workforce Skills Qualification training.*



# Operations Review

Singapore Power has consolidated its training arm, SP Training Institute (SPTI), and its consultancy arm, SP Global Solutions (SPGS), into a newly established business unit, SPTCC.

SPTCC commenced operation in November 2010 to leverage the Group's core expertise in the ownership and management of electricity and gas transmission and distribution networks, and operational excellence in the utility industry.

SPTI will continue to position itself as a training centre of excellence in the utility sector with priority towards ensuring that all SP's technical and operational training needs are well catered for.

Within SPTCC, SPGS will serve to grow its consultancy business and extend its footprint in overseas markets.

## SPTI

In April 2010, SPTI was accredited as an Approved Training Organisation (ATO) by the Singapore Workforce Development Agency (WDA).

SPTI has been tasked to develop and conduct a number of courses under the Workforce Skills Qualification (WSQ) framework for the energy utilities industry. SPTI's priority in the coming year is to provide top-notch technical and operations training to meet SP's needs.

## SPGS

The year in review was an eventful year of strong and robust growth for SPGS, supported by its international contracts.

For the year ended 31 March 2010, SPGS' revenue increased 22% year-on-year to S\$6.8 million. Key consultancy projects that were successfully completed during the year include:

- Network management training for 21 power supply bureaus from Guangdong Power Grid (GPG);
- Condition monitoring consultancy for the 2010 Shanghai World Expo and the 2010 Guangzhou Asian Games;



*SPTCC conducting training for City Power Johannesburg, South Africa.*

- Technical assessment consultancy for Al Ain Distribution Company in the UAE;
- Consultancy and training contract with City Power of Johannesburg on "Protection & Security/Surveillance Systems via Telecoms".

Going forward, SPGS will leverage its existing projects, client base and partner relationships to strengthen and extend its presence in key markets such as China, India and South Africa. New markets such as the Middle East and Eastern Europe will provide avenues to grow SPGS' business in the next few years.

# Operations Review

## SINGAPORE DISTRICT COOLING

### ACHIEVING RECORD GROWTH

Driven by robust growth in demand, FY 10/11 was an exciting year for Singapore District Cooling (SDC). SDC registered a record revenue of S\$50.8 million and net profit of S\$9.4 million. With the completion of major system expansion projects, its total assets grew by 13% to S\$203 million.



*Marina Bay Sands: SDC's key customer benefitted from district cooling services.*

# Operations Review

FY 10/11 began with strong numbers for SDC's cooling energy offtake as the Marina Bay Sands (MBS) Integrated Resort commenced its commercial operations.

Phase 1 of the Marina Bay Financial Centre (MBFC) also started receiving chilled water supplies from April 2010.

The aggregate cooling energy offtake for the year was 434GW<sub>r</sub>h, compared to 92GW<sub>r</sub>h for the previous year.

The completion of MBS and MBFC contributed to the attainment of a critical mass of cooling demand for efficient operation of the new utility system. This has led to a major lift in production efficiency.

Consequently, the energy usage of 0.23kW<sub>e</sub>h per kW<sub>r</sub>h of cooling output for the year was 8% lower than the previous year's usage of 0.25kW<sub>e</sub>h per kW<sub>r</sub>h, and 18% lower than the regulatory benchmark of 0.28kW<sub>e</sub>h per kW<sub>r</sub>h.

SDC recorded another year of service excellence in FY 10/11. The supply availability index, which reflects the ability to maintain the temperature of chilled water supply within specifications, was 100% for the year.

In addition, SDC scored an average of 8.7 out of 10 in a customer satisfaction survey of its key customers, which was conducted in March 2011.

In 2008, SDC successfully brought on board MBS to procure its hot water requirement from SDC, although the supply of hot water is not a mandated service. The advantage is that SDC can use the waste heat from its chillers to produce hot water at marginal costs. The recycling of waste heat contributes to environmental sustainability.

The hot water supply scheme has been successfully commissioned, and commenced in April 2010.

## System Development

The year in review also saw SDC successfully complete the Stage 2 Capital Projects, at S\$128 million.

The projects included the 40MW<sub>r</sub> capacity expansion for Plant 1 at One Raffles Quay, the new Plant 2 (DCP2) at MBS with a 60MW<sub>r</sub> capacity, the piping network in the Common Services Tunnel and a new control system for the coordinated operation of the enlarged system.

## New Supply Offtake

In FY 10/11, five new supply points were commissioned for the mandated area.

The new premises that are being served are the MBS-Theatre, the MBS-Museum, MBFC-Tower 2, the Marina Bay City Gallery and Bayfront MRT Station.

To leverage its existing production facilities and operational capabilities, SDC managed to secure two new customers outside its mandated zone, namely Ocean Financial Centre and Gardens by the Bay.

## Protecting the Environment

Being a new urban utility system that increases the energy efficiency associated with air conditioning for a business district on a macro scale, district cooling significantly reduces the associated carbon dioxide emissions.

For its achievement in energy efficiency, SDC was awarded the International District Energy Climate Awards 2011 Certificate of Merit for Superior Achievement in May 2011. The Awards were judged by a panel of experts led by the International Energy Agency.

## Going Forward

Demand for cooling energy will continue its robust growth in FY 11/12, with the progressive occupancy of MBFC Phase 1, the Ocean Financial Centre, Asia Square and Gardens by the Bay.

The aggregate contract capacity from customers is projected to grow from 120MW<sub>r</sub> in April 2011 to 145MW<sub>r</sub> by March 2012.

To meet the rising demand for cooling, a new capital project for a 30MW<sub>r</sub> increase in production capacity at DCP2 has been planned for completion in mid-2012.

SDC will continue its marketing efforts to secure the connection of non-mandated premises in the vicinity of Marina Bay to its district cooling system.

SDC is currently in discussions with the relevant government agencies about implementing district cooling systems in other new development areas.





# Operations Review

## Australia Operations

Our Australia Operations have four main business units – SP AusNet, SPI Management Services, SPI (Australia) Assets and Jemena Asset Management Co. Their business activities span the States of Victoria, Queensland, New South Wales and Western Australia.

# Operations Review

## SP AUSNET MANAGEMENT



**Mr Nino Ficca**  
Managing Director



**Mr Geoff Nicholson**  
Chief Financial Officer, and General  
Manager (Finance and Strategy)



**Mr Charles Popple**  
Group General Manager (Networks  
Strategy and Development)



**Mr Norm Drew**  
Group General Manager  
(Integrated Network Services)



**Mr John Kelso**  
General Manager  
(Select Solutions)



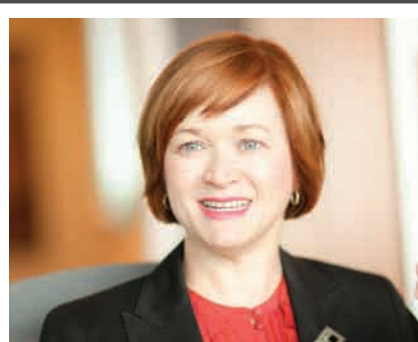
**Mr Ash Peck**  
General Manager (Information and  
Communication Technology)



**Ms Susan Taylor**  
General Counsel and Company  
Secretary



**Ms Claire Hamilton**  
General Manager  
(Risk and Assurance)



**Ms Geraldine Leslie**  
General Manager  
(People and Safety)

# Operations Review

## SP AUSNET

### UPHOLDING STRENGTH & RELIABILITY

SP AusNet is the largest diversified energy infrastructure business in Victoria, owning and operating a state-wide electricity transmission network, an electricity distribution network in eastern Victoria and a gas distribution network in western Victoria, serving more than one million consumers.



*SP AusNet's electricity distribution network carries electricity from zone substations to customers in outer eastern metropolitan Melbourne and eastern Victoria.*

# Operations Review

## ELECTRICITY TRANSMISSION

### Overview

SP AusNet's electricity transmission network spans the whole of Victoria, with more than 6,500km of transmission lines that transport electricity from power stations to electricity distributors and large customers. The network is centrally located among Australia's five eastern states that form the National Energy Market, providing key connections between South Australia, New South Wales and Tasmania's electricity transmission networks.

In FY 10/11, the electricity transmission network contributed A\$540.6 million in revenue to SP AusNet's financial performance. SP AusNet invested A\$164.6 million to improve network performance on the transmission system during the year.

### Performance and Reliability

Electricity transmission network availability was 99.15% in the 2010 calendar year, favourable to the target of 98.73% that was set by the Australia Energy Regulator (AER) for the regulatory period from 2008 to 2013. The transmission system minutes off supply measure of 0.19 was favourable against the target of 1.15.

### Upgrades and Extensions

Major upgrades to the transmission system in the past year aimed to improve its reliability, capacity and performance to meet increasing energy demands. The Thomastown terminal station rebuild is forecast to be completed in 2011 and the upgrades to the Brooklyn, Ringwood, Dederang, Keilor, Horsham and Morwell terminal stations are in progress.

SP AusNet has commenced planning activities to build two new terminal stations, in Tarrone and Wemen, and to augment the Brunswick terminal station. It was awarded the tender to build the Tarrone terminal station, between

Warrnambool and Portland. Works to connect the Mortlake Power Station have been completed, ready for the power station to commence generation. SP AusNet expanded the capacity of its Keilor and Geelong terminal stations by installing new transformers to cope with the extra load in these key growth corridors.

### Electricity Distribution

SP AusNet's electricity distribution network carries electricity from zone substations to connected electricity consumers in outer eastern metropolitan Melbourne and eastern Victoria. The network is approximately 48,000km in length, spanning an area of about 80,000sq km and servicing more than 630,000 consumers. The electricity distribution network is situated in two of the largest growth corridors in Australia and is constantly expanding to meet the needs of the consumers. In 2011, almost 12,000 new consumer connections were added to the distribution network, with energy delivered growing by 1.3% over the year.

In FY 10/11, the electricity distribution network contributed A\$609.1 million in revenue to SP AusNet's financial performance, and distributed 7,881GWh of electricity. SP AusNet invested A\$391.1 million in capital expenditure to extend the distribution network and improve its performance.

For the 2010 calendar year<sup>1</sup>, the distribution network's reliability performance was 178.8 minutes USAIDI<sup>2</sup>. This is an improvement against the previous year.

SP AusNet is continuing to invest in initiatives that will make the network more resilient to extreme weather events and deliver reliability improvements. These initiatives include the further deployment of distribution feeder automation (DFA), and the review of physical aspects of key feeders to make them more robust.

<sup>1</sup> Performance is measured over the calendar year to align with regulatory arrangements.

<sup>2</sup> USAIDI is the total number of minutes a customer experiences loss of supply due to unplanned interruptions, on average, in a year.



# Operations Review

## Growth and Upgrades

Situated in key growth corridors of Victoria, the electricity distribution network has undergone significant upgrades and improvement works to meet increased demand and improve reliability of supply.

A new zone substation has been established at Lysterfield in one of Melbourne's largest growth corridors. The substation entered service in advance of the summer peak loading period. It alleviates the growing demand on other zone substations serving the region.

The electricity distribution network also received major technological upgrades to increase flexibility in delivering energy to customers and reducing time off supply. More of the network was equipped with increased "smart" capabilities that allow parts of the electricity grid to be remotely controlled, enabling a faster response time to outages and the ability to switch power around the network from other areas if a fault occurs through DFA.

SP AusNet has stringent bushfire mitigation practices to comply with key external targets each year. Approximately 75,000 poles are routinely inspected from the ground and 45,000 from the air using helicopters and unmanned aerial vehicles to ensure ongoing serviceability. This year, the programme has been increased with a further 3,000 poles as part of the introduction of the mid-cycle inspection programme.

## Gas Distribution

SP AusNet's gas distribution network transports natural gas from the principal transmission pipeline system to consumers in central and western Victoria. It consists of approximately 9,900km of gas distribution and transmission pipeline, delivering natural gas to more than 589,000 consumer connections across approximately 60,000sq km. The natural gas network is SP AusNet's fastest growing network, experiencing a 3.1% growth on consumer connections on the previous year.

In FY 10/11, the gas distribution network contributed A\$201.1 million in revenue and distributed 73.3PJ of gas. SP AusNet invested A\$72.9 million to expand the distribution network and connected 17,777 consumers across central and western Victoria.

## Performance and Reliability

SP AusNet takes pride in the reliability and response times of its gas distribution network. Reliability is measured as the total number of minutes, on average, customers could expect in unplanned interruptions to their supply during a calendar year.

For the 2010 calendar year, the gas distribution networks' reliability performance was 1.16 customer minutes off supply, marginally exceeding the internal target of 0.95. This was influenced by an elevation in third-party damages and unseasonal weather, including excessive rains experienced during the year.



*SP AusNet carries out extensive maintenance work to ensure a reliable supply of energy.*

# Operations Review



*Select Solutions continued to pursue commercial opportunities from innovative technologies.*

Revenues from the gas network were favourably impacted by the annual regulated price adjustments on 1 January 2010 and by the strong growth in consumer connections. There was an increase in gas usage on the previous year, due to weather conditions.

## **Growth and Upgrades**

The gas network continued its strong growth in the year under review, increasing its reach into new towns and key growth corridors in Victoria's west.

As part of its commitment to the replacement of low pressure gas assets, SP AusNet continued its gas mains renewal programme during the year, installing modern polyethylene pipes, which operate at higher pressures. SP AusNet replaced approximately 75km of gas mains with the new pipes in the suburbs of Avondale Heights and East Keilor, increasing reliability and efficiencies for customers.

Over the past few years, SP AusNet has been building on its joint initiative with the Victorian Government to supply and reticulate natural gas to regional Victoria.

## **Select Solutions**

Select Solutions is the commercial services division of SP AusNet, delivering non-regulated end-to-end specialised services to utilities, government, energy and water retailers, including commercial and industrial customers. Select Solutions also delivers a range of services to SP AusNet including vegetation management services, data and metering services.

In 2011, Select Solutions contributed A\$129.6 million in external revenue to SP AusNet, increasing by 18.7% on the previous year. Through a range of strategic contracts, Select Solutions expanded further into New South Wales, Tasmania and Queensland.

The expansion into New South Wales was through securing two significant condition monitoring and high voltage testing contracts for the transmission and generation businesses, TransGrid and Delta Electricity.

Select Solutions strengthened its position in the specialist water services sector through its acquisition of the Schultz Plumbing business in October 2010. This acquisition established Select Solutions as Victoria's largest water metering service provider.

Select Solutions continued to pursue commercial opportunities from innovative technologies. During the year, Select Solutions made a significant investment into non-invasive electrical asset testing with robotic vehicle mounted thermal and ultraviolet cameras.

These cameras provide high definition images on patrolled powerlines to assist in the identification of issues or potential faults on electricity assets.

This technology helped Select Solutions to play a key role in the response and recovery from Cyclone Ului and, more recently, Cyclone Yasi in Queensland. Working with Ergon Energy, Select Solutions undertook aerial inspections and reported on the network, as well as provided online mapping and data on extensive patrols of the key areas affected.

# Operations Review

Select Solutions also contributed greatly to SP AusNet's bushfire mitigation efforts, inspecting close to 200,000 spans of powerlines including all of its high bushfire risk areas, to ensure SP AusNet achieved its annual target bushfire mitigation index rating.

## Safety

At SP AusNet, safety is the number one priority. SP AusNet believes every workplace injury is unacceptable. SP AusNet continues to work hard at improving its safety performance.

This year, SP AusNet improved its average Lost Time Injury Frequency Rate (LTIFR) from 3.09 for the 12 months ended 31 March 2010 to 2.33 for the year ended 31 March 2011.

The Medical Treatment Injury Frequency Rate (MTIFR) was 8.16 for the 12 months ended 31 March 2011.

In FY 09/10, SP AusNet implemented its safety observation programme. It has been an overwhelming success again this year, as employees have exceeded the internal target (5,000) by 83%.

SP AusNet's Recordable Injury Frequency Rate (RIFR) for FY 10/11 was 10.5, a 6% improvement on the previous year (11.12). Pleasingly, employee RIFR recorded a 15% year-on-year improvement. However, this was offset by a 5% deterioration in contractor safety performance. SP AusNet is actively engaging contractor partners to ensure safety values and expectations are embedded in their operations.

Despite overall improved safety performance in FY 10/11, the focus continues on efforts towards achieving the goal of zero harm.

In April 2011, SP AusNet launched a new safety vision and strategy that will build on a solid platform of compliance, systems and work practices. It will provide the necessary change required to improve safety performance.

SP AusNet's new safety vision and strategy will focus on strong leadership, clearly stated behavioural expectations, safety systems and processes, measurement and feedback.



*Gas distribution network installation in progress.*

# Operations Review

## SPI (AUSTRALIA) ASSETS / JEMENA MANAGEMENT



**Mr Paul Adams**  
Managing Director



**Ms Joanne Pearson**  
Chief Financial Officer



**Dr Shaun Reardon**  
Executive General Manager  
(Assets and Investments)



**Mr Tony Beach**  
Executive General Manager  
(Business Strategy and Projects)



**Mr John van Weel**  
Executive General Manager  
(Infrastructure Services)



**Ms Tina Ooi**  
General Counsel  
and Company Secretary



**Ms Jodie Blake**  
Executive General Manager (HR, Safety  
and Corporate Affairs & Marketing)

# Operations Review

## SPI (AUSTRALIA) ASSETS

### POSITIONED FOR GROWTH

SPI (Australia) Assets and its subsidiaries (Jemena) remained focused on optimising core business and building and leveraging capabilities in FY 10/11. Jemena has continued growing its assets and services business through improved financial performance, asset investment and a stronger customer focus providing a solid platform for sustainable value creation. This includes significant improvements to Jemena's systems and processes and continuing the journey towards achieving a proactive safety culture by the end of 2012.



*Jemena continues to deliver safe and reliable infrastructure services to asset owners throughout Australia.*

# Operations Review

Enhancing the competitiveness of Jemena's services business was a key focus for the organisation. This was pursued through continuing an organisation-wide programme of business initiatives to strengthen financial controls, improve business discipline and reduce cost.

As part of this programme, Jemena commenced upgrading and consolidating its ageing enterprise IT systems. The company also launched its SAP project to improve its Enterprise Resource Planning & Management System.

In FY 10/11, Jemena's consolidated revenue grew to A\$1.61 billion, from A\$1.43 billion in FY 09/10. The Net Profit After Tax (NPAT) was A\$194 million – a significant increase from FY 09/10's Net Loss After Tax of A\$736 million (which included a net after tax impairment of Group assets of A\$822 million).

During the financial year, Jemena also invested A\$334 million (excluding customer contributions) in its assets and infrastructure, in order to continually expand the capacity of its networks and maintain the quality of its assets.

In addition, Jemena successfully launched its Medium Term Note (MTN) programme, under which the company can issue bonds to investors in the debt capital markets. Three bond issues were launched in FY 10/11 across Australia, Switzerland and the UK, totalling over A\$1 billion.

The proceeds of these bonds were used to execute Jemena's refinancing strategy, so as to diversify the sources of debt funding, spread the maturity profile and reduce refinancing risk.

In FY 10/11, Jemena also had its A-rating by Standard & Poors and A3 rating by Moody's Investors Service confirmed during the year.

## **Jemena Electricity Network (JEN)**

In FY 10/11, JEN contributed A\$300 million in revenue and distributed 4,447GWh of energy.

Demand for connections to the network was very strong. A total of A\$43 million was invested for customer-initiated projects.

In addition, A\$79 million was invested to maintain reliability and capacity in the network, with a further A\$34 million being invested as part of the Advanced Metering Infrastructure (AMI) programme.

## **Jemena Gas Network (JGN)**

In FY 10/11, JGN contributed A\$422 million in revenue and distributed 35,123TJ of gas.

In addition, a significant investment of A\$140 million was made to maintain and expand the network. This investment is directed towards a range of activities, including market expansion, capacity development, facility renewal and upgrading, metering, mains and services renewal, and ancillary equipment.

## **Growth Paths**

During FY 10/11, Jemena continued to invest in growth opportunities.

These included the continuing implementation of the Advanced Metering Infrastructure (AMI) programme in Victoria and the pursuit of additional services work for external customers.

The AMI meter roll-out is progressing as planned, with the installation of 56,815 meters on JEN's network and 113,699 meters on United Energy Distribution's (UED) network as at 31 March 2011.

In a significant IT and communications infrastructure achievement, the recently established AMI Network Operations Centre (NOC) at Forest Hill is now receiving data from over 154,000 Type 5 AMI "smart meters" installed in households and businesses on the networks.

This remote data provides Jemena with information about customer power usage. The data is collected at 30-minute intervals during each 24-hour period.

Besides giving a clearer picture about customer power usage, the data is used to alert the control room of any interruptions to the power supply, as well as the restoration of supply for individual customers, resulting in a quicker and more efficient response to power outages.

During the financial year, Jemena also secured its largest agreement to date with Energex to maintain half of the Queensland distributor's electricity network.

# Operations Review

The new contract for Energex – which delivers electricity to 2.7 million customers in South East Queensland – provides a significant boost for the business, in terms of positioning Jemena to continue growing its services work, including winning substation and transmission projects.

In the second half of 2010, Jemena entered a new multi-million dollar umbrella partnership with Western Power to maintain and improve its distribution network. The South West Interconnected System is a 95,000km electricity network that supplies power to 1.5 million West Australian customers.

Jemena also signed a new five-year contract with United Energy Distribution (UED) to deliver a range of operational services from 1 July 2011. This agreement supports UED's establishment of a revised business model and ensures a positive outcome for Jemena's investment in UED, as well as the ongoing profitability of the services business.

The transition to the new UED services contract will see Jemena remain as the prime contractor for all field services to UED until 31 December 2011.

From 2012 onwards, UED will introduce a regionally-based service delivery model, with Jemena servicing the northern regional area until 30 June 2016.

## Key Developments

Last year, Jemena celebrated 10 years of safely operating and maintaining the Eastern Gas Pipeline (EGP).

This pipeline provides natural gas to over 40% of Sydney, as well as the Australian Capital Territory. Covering over 797km from the Longford Compressor Station in Victoria, the EGP is the single source of gas for many homes, businesses and power stations.

The 2010 commissioning of a fourth gas turbine compressor at Longford has increased the capacity of the EGP by 7% to 268TJ/d.

In addition, the completion of a major expansion in January 2010 of the Queensland Gas Pipeline (QGP) – which transports gas for some of Queensland's major industries – has increased its capacity by 80% to 142TJ/d, positioning it to effectively meet customer demands.

The finish line is in sight for Jemena to commission Australia's first privately owned recycled water network.



*Jemena workers fixing a power line.*

After five years of planning and construction, Jemena's Rosehill Recycled Water Scheme will be commissioned in July 2011, providing up to 7bn litres of safe, high quality water to industrial and commercial customers every year.

## Safety

In a 2010 Safety Culture Survey, over 87% of Jemena's respondents gave a favourable score regarding whether "Jemena is committed to Safety".

This result reflects Jemena's new safety initiatives, as well as a significant reduction in the Lost Time Injury Frequency Rate (LTIFR) over the past two financial years. The LTIFR has gone from 5.2 to 3.1 as at 31 March 2011, representing a 51% reduction.

Jemena's safety culture is based on the Hudson Model, which is a framework that helps the business to understand performance against strategy and progress towards the organisation's vision.

The Hudson Model has five levels, and Jemena's performance is currently assessed to be on the third level, which is called "calculative". Jemena aims to achieve the fourth level – "pro-active" – by the end of 2012.

This will require employees to identify and address potential risks before being asked, in addition to caring for the safety of their fellow employees.

Jemena's safety culture is constantly being improved by new initiatives such as "Safety Walks" for senior managers at all Jemena sites, as well as ongoing programmes like the "Safety Heroes" initiative, which recognises outstanding health and safety behaviour.

# Operational Support

## HUMAN RESOURCE

### OUR PEOPLE

SP's strong operating performance is underpinned by its highly dedicated workforce. Just as SP is committed to providing the best service to our customers, SP Group is similarly committed to fostering an environment that allows our people to realise their full potential. SP continued to invest in building our leadership and talent pipeline, in particular growing our engineering capabilities across the Group.



*SP's scholars are put through a two-year induction programme for them to gain a wider perspective of our businesses.*



# Operational Support



*Overseas postings for high-performing employees provide opportunities for sharing best practices.*

## **Learning Opportunities**

Staff training and development remained a top priority. SP places a major focus on building employee capabilities to ensure that they are equipped with the necessary skills for today and into the future.

In Singapore, we invested S\$1.5 million in various learning and development initiatives, with each staff receiving an average of 46 learning hours during the year.

In Australia, Jemena invested A\$3.8 million to engage employees in a wide range of learning and development initiatives. These included Management & Leadership development, Health & Well-being activities, Safety training and Field Operations & Compliance training.

Similarly, SP AusNet had also invested over A\$3 million in the skill development of its employees, including job-related training, leadership development programmes, tertiary education study sponsorships and safety and compliance training.

## **Workplace Safety and Work Life Balance**

Workplace safety is an ongoing commitment for all leaders, employees and contractors.

In Singapore, the SP Safety Committee continues to spearhead initiatives to drive workplace safety culture amongst its employees and contractors.

In Australia, Jemena has a strategic plan that focuses on building a “Generative Culture” in line with the “Hudson” Safety Culture framework. Despite an improved safety performance achieved in recent years, Jemena recognises the need for continual diligence and commitment to create a safe workplace.

SP AusNet has recently launched a new safety vision and strategy, “missionZero” to drive a sustained improvement in its safety performance. “missionZero” will focus on strong leadership, clearly stated behavioural expectations, and improved safety systems, processes and measurement.

# Operational Support

Juggling the demands of an individual's life outside work and career can be difficult. To create a balance between business requirements and personal needs, SP allows employees to work flexibly through schemes such as Part-time Employment and Work-From-Home, subject to the constraints of the job nature. The Work-From-Home Scheme has led to increased productivity, especially for the Customer Services staff. It cuts down on commuting time and travelling cost for these employees, as well as providing extended service hours for customers.

Committed to being "A Great Place to Work", Jemena has developed action plans that help create a desirable working environment.

SP AusNet supports flexible working arrangements to enable its employees to balance their work and family responsibilities. These include policies for paid parental leave and part-time transition back to work from parental leave, as well as access to carer's leave to help employees manage their child, family and elder care responsibilities.



*SP emphasises staff training and development to ensure that they are equipped with the necessary skills for today and into the future.*

## **Building Our Leadership and Talent Pipeline**

SP instituted changes to succession planning to ensure and prepare a ready pool of high-potential candidates for future management opportunities. To hone these candidates' leadership capabilities and widen their perspectives in today's ever changing global business and technological environment, they were sponsored for Executive Development Programmes and higher education courses, such as the Temasek's Global Leaders! Programme and the Master of Science in Power Engineering programme at the Nanyang Technological University.

High-performing employees were also placed on overseas postings so that they could acquire international experience and sharpen their business acumen. These overseas postings also allowed our employees to better understand cross-cultural business issues and encourage sharing of best practices within the SP family. Ten employees were posted to our Australian business units in FY 10/11.

Jemena plans to deliver a number of initiatives which include the deployment of a HR system that will automate the performance review and talent management processes. In addition, Jemena regularly conducts talent and succession planning reviews. It has developed initiatives aimed at improving coaching in the workplace, development of key talent, and building depth in our job family technical capabilities.

SP AusNet has developed a talent management strategy to assist in building a high-performance culture and deliver transformational changes across the business. This strategy recognises and outlines the need to attract, assess, develop and retain the most important asset the organisation has – its people.

# Operational Support



*SP is committed to fostering an environment that allows our people to realise their full potential.*

## **Enhancing Engineering Capabilities**

As part of our efforts to enhance our capabilities and strengthen our core expertise as an engineering company, SP launched the structured engineering training programme in July 2010. The main objective of this holistic training programme is for our young engineers to acquire specific engineering knowledge and technical experience related to the electricity and gas transmission and distribution industry. A total of 43 young engineers have participated in this programme, and the knowledge gained has allowed them to adapt more seamlessly to our engineering environment.

In early 2011, a record 39 apprentices and trainees joined Jemena. They were selected from the highest-ever total of over 900 applications. In addition, for the first time in a decade, four gas trainees have been appointed in Victoria in a trial with a technical training institute to gain a Certificate III in Mains and Services. Ten new engineering graduates also joined the business.

This year, 34 new starters joined SP AusNet's existing 128 apprentices, trainees and graduates to work across its networks in various capacities, as part of the company's "Skilling for the Future" programme.

During the year, SP AusNet also received the 2010 Minister's Award for Excellence for Employers of Australian Apprentices for the Gippsland Region from the Federal Skills Minister, Senator Chris Evans. The award was in recognition of SP AusNet's commitment, innovation and outstanding achievements in the training of apprentices.

# Operational Support

## INFOCOMM TECHNOLOGY

### NEW SYSTEMS, ENHANCED CAPABILITIES

The Infocomm Technology Department (ITD) works closely with the various business units to implement Information and Communications Technology (ICT) solutions. These ICT initiatives enhance the capabilities of the units, to ensure efficient and effective execution of business strategies.



*IT Department constantly implements new technology and initiatives to enhance current capabilities.*

# Operational Support

During the year in review, ITD remained committed to providing effective and timely ICT support, solutions and services to enhance SP Groups' operational success and quality service.

The department exceeded the 99.8% target set for the availability and up-time of its online systems and network. It also achieved zero virus and Internet intrusion into SP's corporate network.

On the group-wide level, the department conducted disaster recovery exercises and kept the Group's business continuity plans constantly updated.

## **Replacement of the Geographic Information System (GIS) for Network Systems**

The current mapping systems for SP's electricity and gas networks have been in use for the past decade.

ITD will replace the systems for both networks with a single application. The new application will provide greater functional capabilities, and increase SP's effectiveness and efficiency in both the office and the field.

With an integrated Outage Management System (OMS), the application will enable SP PowerGrid to manage incidents, as well as analyse network incidents in greater detail. The emergency field service staff will also be able to provide the latest and real-time updates on incident resolution expeditiously. With a click of the mouse, management, call centre and network operations staff will be able to view the current status of the network.

Advanced analytics capabilities will also allow SP PowerGrid to predict potential failures and proactively plan for preventive maintenance programmes.

## **Business Improvement Programme**

Commenced in Mar 2010, the business improvement programme, J-SAP, which replaces the Enterprise Resource Planning (ERP) legacy systems at Jemena with the latest version of SAP's ERP system, is progressing on schedule. The modules are being implemented in the Finance, Human Resource, Payroll, Works and Asset Management, and Enterprise portal.

As part of ITD's plan to build the Group's Singapore operations into an ERP centre of excellence, post-implementation system support and hosting of the hardware will be provided out of Singapore.

## **Upgrading SP Services' MSSL IT System**

ITD's long-term strategy is to consolidate SP's critical business systems onto a common software platform to drive greater synergies.

In line with this, ITD has been working closely with SP Services in the upgrading of its Market Support Services Licensee (MSSL) IT System.

As part of the implementation process, a trial will be conducted with market participants to ensure that the system meets the market requirements.

## **New IT Infrastructure in SP's Mapletree Business City (MBC) Office**

ITD is helming a project that will enable Voice Over Internet Protocol (VoIP) in MBC, so as to support SP's telecommunication needs. The project is scheduled for completion in late 2011.

Once the system is ready, SP's business units in MBC will enjoy lower telecommunication costs. In addition, the new telephony system will allow SP's mobile employees to be contacted with the same number, regardless of their location.

The rest of SP's offices in Singapore will be VoIP-ready in 2012.

## **The Year Ahead**

SP's information systems infrastructure is key to delivering superior customer service and operational efficiency. In the coming year, ITD, through the adoption of common systems, economies of group purchasing, and sharing of knowledge and skills, will continue to improve its IT infrastructure to derive greater synergies across the SP Group.

In addition, ITD will constantly review its internal processes and procedures against the industry's best practices, so as to further enhance its service delivery capabilities.

# Operational Support

## RISK MANAGEMENT

### PROTECTING STAKEHOLDERS' VALUE

SP is committed to Enterprise Risk Management and recognises risk management as an essential tool for effective corporate governance, sound decision making and efficient operational management.



SP's business, which is highly capital intensive with returns generated over the long-term, requires close management of its assets and resources to ensure business continuity and to sustain its prudent financial position. As many risks are inherent in SP's business functions, an active and disciplined risk management approach is adopted as an integral part of day-to-day activities at all levels across the organisation.

An institutionalised and comprehensive enterprise-wide risk management framework within SP ensures that its practices protect and maximise stakeholders' value. A systematic and holistic approach is adopted to identify, assess, mitigate, report and monitor the different types of risks, including strategic, financial, operational, regulatory, legal, reputational and safety risks.

The Group's guiding principle is that all employees are responsible for risk management in their respective areas of work. The roles and responsibilities of risk escalation and communication are therefore clearly defined.

Risk management in SP is an evolving and continuous process. An active risk-awareness culture is inculcated through a group-wide communication strategy via company periodicals, staff training, workshops and joint exercises in qualitative or quantitative risk reviews.

SP has embarked on analytical and quantitative approaches in risk assessment since 2006. The SP Risk Management Policy was conceptualised to provide Group Risk Management with the authority and guidance on risk practices and principles. This laid the foundation for the development of the SP Group Risk Manual, which institutionalises SP's risk management framework and processes.

SP has further strengthened the development of its risk management framework with full-time risk management teams at the subsidiary level, advocating accountability for risk issues and promoting the establishment of risk compliance, communication and escalation procedures.

## Community & Environment

### SP CARES

Taking pride in our commitment towards helping the less fortunate and saving the environment, SP, through our actions and philanthropic programmes in Singapore and Australia, continued to make a positive impact on the communities in which we operate.



*SP AusNet continued its partnership with Landcare Australia to provide key funding for native flora and fauna projects within network areas.*

# Community & Environment

## *Making a Difference to the Community*

In Singapore, SP remained a key corporate partner of the Community Chest's Home Help Service programmes. In FY 10/11, we raised over S\$880,000 in donations under SP Heartware Fund to provide home care services to close to 1,800 needy elderly in Singapore. Essential assistance in the form of meal delivery, transport for medical check-ups, assistance with personal care/hygiene, housekeeping and laundry service enabled these frail seniors to age – with grace and dignity – in the comfort of their homes and communities.

The funds were largely raised through two direct mailers which went out to members of the public with the July and December utility bills, a charity golf game for our business associates on 30 September, and outright donations by SP.

SP staff in Singapore also lent support to the cause. Apart from contributing donations, they put in time and energy to light up the lives of these needy elderly. A company-wide "Bags of Love" donation drive held in December last year saw the staff raise the targeted 1,563 bags of food items for the SP Heartware Fund beneficiaries in less than a week. A total of 31 volunteers further gave up their lunch hours to help pack the food items into recycled bags and load them onto lorries for delivery to the voluntary welfare organisations running the Home Help Service programmes.

At a Hari Raya Party held on 26 September, nine SP volunteers befriended and attended to 40 needy elderly of Sunlove Home Help Service who were invited to participate in the festivities at SP Club. Another outstanding community service effort came from seven "super" SP staff, who collectively clocked over 400 hours of volunteer time to deliver hot meals to the needy elderly on weekends through the Meals-on-Wheels programme by TOUCH Home Care.

In recognition of SP's contributions to the Home Help Service programmes, the Community Chest awarded us with a Special Events Platinum and 5-Year Outstanding Special Events Award for 2009 last year. At the close of the financial year, the SP Heartware Fund had disbursed over S\$5.16 million in aid of the Home Help Service programmes since it was launched in October 2005.



*SP raised over S\$880,000 for the SP Heartware Fund to sponsor the Home Help Service programmes, which is dedicated to helping more than 1,800 needy elderly.*

During the year in review, SP also reached out to other segments of society through its corporate-giving programme. A total of 14 organisations including St Luke's Eldercare Ltd and The Salvation Army received sponsorships. SP also sponsored in part the mailer inserts of the Home Nursing Foundation, Dover Park Hospice and St Luke's Hospital.

SP was also a proud premier sponsor of the National Day Parade 2010 held at the Padang to commemorate Singapore's 45<sup>th</sup> year of independence.

In Australia, Jemena raised over A\$140,000 for local and overseas charities during the year. The business continued a history of supporting The Salvation Army, the Red Cross as well as other national and local charities. This includes a total of A\$110,000 employee and business co-contribution donations to communities impacted by devastating natural disasters in New Zealand, Victoria, Queensland and Pakistan.



# Community & Environment

## *Doing Our Part for the Environment*

Through the Electricity Efficiency Centre operated by SP Services, SP continues to educate consumers and the young on the efficient use of electricity. In FY 10/11, the Centre welcomed over 9,000 visitors, including students attending the energy conservation workshops organised by SP Services.

During the year, Jemena funded the planting of more than 13,500 trees and native plants as part of sponsored projects with Landcare Australia. The partnership helped local communities across Australia restore and revegetate areas of land to protect the habitat of native species, and to enhance areas available for public use. In recognition of Jemena's support of these environmental initiatives, Landcare Australia presented Jemena with a Gold Plaque at their national awards in Canberra in 2010.

More than 150 Jemena employees also supported Landcare and helped local communities in tree planting and other rehabilitation activities in the Australian Capital Territory, New South Wales, Queensland, Tasmania and Victoria.

SP AusNet continued its partnership with Landcare Australia, providing key funding for native flora and fauna projects within network areas.

In early 2011, severe floods affected towns in Northern Victoria and threatened the operations of key electricity infrastructure that supports electricity supply to many thousands of customers. For SP AusNet, the greatest threat was to the Kerang terminal station in north-west Victoria.

Thanks to the collaborative efforts of employees, local emergency service workers and local community volunteers, these critical assets were saved, flood damage was minimised and power was maintained to more than 20,000 customers.

During the year, SP AusNet participated in a number of community events including sponsorship of the Wonthaggi Innovation Festival, in support of environmentally friendly energy alternatives in Victoria's Gippsland region.

SP AusNet also supported the local rebuilding and revegetation of key areas affected by bushfires through two community driven sponsorships, namely the Traralgon South and District Shed Project and the Baw Baw Shire Community Trailer. Both initiatives provided building and maintenance supplies, housed in a central location, to be accessed by the wider community to work on rebuilding fire-affected bushland and community reserves.



*Jemena funded the planting of more than 13,500 trees and native plants as part of sponsored projects with Landcare Australia.*

# Financial Summary

## **Important Note**

The Summary Financial Statements as set out on pages 79 to 85 contains only a summary of the information in the Directors' Report and financial statements of Singapore Power Limited's (the "Company") Annual Report. It does not contain sufficient information to allow for a full understanding of the results and the state of affairs of the Company or of the Company and its subsidiaries (collectively the "Group").

For further information, the full Annual Report, the Independent Auditors' Report on those financial statements and the Directors' Report in the Annual Report should be consulted. A copy of the Annual Report can be found on the Group's website [www.singaporepower.com.sg](http://www.singaporepower.com.sg)

## **SUMMARY DIRECTORS' REPORT**

### **1. Directors**

The directors in office at the date of this report are as follows:

Mr Ng Kee Choe  
Mr Alan Chan Heng Loon  
Mr Eric Gwee Teck Hai  
Mr Ho Tian Yee  
Mr Tan Chee Meng  
Mr Bobby Chin Yoke Choong  
Prof Jeremy Guy Ashcroft Davis  
Mr Choi Shing Kwok  
Mrs Oon Kum Loon  
Tan Sri Mohd Hassan Marican (Appointed on 15 February 2011)  
Mr Ng Yat Chung  
Mr Quek Poh Huat

### **2. Principal activities**

The Company is an investment holding company. Its subsidiaries are engaged principally in the transmission and distribution of electricity and gas, provision of related consultancy services and investment in related projects.

# Financial Summary

### 3. *Unusual items during and after the financial year*

In the opinion of the directors, no item, transaction or event of a material and unusual nature has arisen during the financial year or in the interval between the end of the financial year and the date of this report which would substantially affect the results of the operations of the Group and Company for the financial year in which this report is made, or render any item in the financial statements of the Group and Company for the current financial year misleading, and/ or affect the ability of the Group and the Company in meeting the obligations as and when they fall due, except as disclosed in the notes to the full financial statements.

The Summary Financial Statements set out on pages 79 to 85 was approved by the Board of Directors on 31 May 2011 and was signed on its behalf by:



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**MR NG KEE CHOE**

*Chairman*



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**MR QUEK POH HUAT**

*Group Chief Executive Officer/Director*

31 May 2011

# Financial Summary

## INDEPENDENT AUDITORS' REPORT

Member of the Company  
Singapore Power Limited

We have examined the Summary Financial Statements set out on pages 79 to 85, which have been prepared by the management of the Company.

The Summary Financial Statements does not contain all the disclosures required by Singapore Financial Reporting Standards applied in the preparation of the audited statutory consolidated financial statements of the Group. Reading the Summary Financial Statements, therefore, is not a substitute for reading the audited statutory consolidated financial statements of the Group.

### ***Management's responsibility for the Summary Financial Statements***

Management is responsible for the preparation and presentation of the Summary Financial Statements.

### ***Auditor's responsibility***

Our responsibility is to express an opinion on the summary financial statements based on our procedures, which were conducted in accordance with Singapore Standard on Auditing 810, "Engagements to Report on Summary Financial Statements."

### ***Opinion***

In our opinion, the Summary Financial Statements are consistent, in all material respects, with the full financial statements and the Directors' Report of Singapore Power Limited and its subsidiaries for the year ended 31 March 2011.

We have issued an unqualified audit report dated 31 May 2011 on the full financial statements of Singapore Power Limited and its subsidiaries for the year ended 31 March 2011. The audit report is as follows:

# Financial Summary

## INDEPENDENT AUDITORS' REPORT (Cont'd)

### “INDEPENDENT AUDITORS' REPORT

*Member of the Company*  
*Singapore Power Limited*

#### REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of Singapore Power Limited (the Company) and its subsidiaries (the Group), which comprise the balance sheets of the Group and the Company as at 31 March 2011, the income statement, statement of comprehensive income, statement of changes in equity and cash flow statement of the Group and the income statement, statement of comprehensive income and statement of changes in equity of the Company for the year then ended, and a summary of significant accounting policies and other explanatory information, as set out on pages FS1 to FS73.

#### *Management's responsibility for the financial statements*

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with the provisions of the Singapore Companies Act, Chapter 50 (the Act) and Singapore Financial Reporting Standards, and for devising and maintaining a system of internal accounting controls sufficient to provide a reasonable assurance that assets are safeguarded against loss from unauthorised use or disposition; and transactions are properly authorised and that they are recorded as necessary to permit the preparation of true and fair profit and loss accounts and balance sheets and to maintain accountability of assets.

#### *Auditors' responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Singapore Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

# Financial Summary

## INDEPENDENT AUDITORS' REPORT (Cont'd)

### *Opinion*

In our opinion, the consolidated financial statements of the Group and the balance sheet, income statement, statement of comprehensive income and statement of changes in equity of the Company are properly drawn up in accordance with the provisions of the Act and Singapore Financial Reporting Standards to give a true and fair view of the state of affairs of the Group and of the Company as at 31 March 2011 and the results, changes in equity and cash flows of the Group and the results and changes in equity of the Company for the year ended on that date.

### **REPORT ON OTHER LEGAL REGULATORY REQUIREMENTS**

In our opinion, the accounting and other records required by the Act to be kept by the Company and by those subsidiaries incorporated in Singapore of which we are the auditors have been properly kept in accordance with the provisions of the Act.”



**KPMG LLP**

Public Accountants and

Certified Public Accountants

**Singapore**

31 May 2011

# Financial Summary

## SUMMARY BALANCE SHEETS

As at 31 March 2011

	Group		Company	
	2011 \$ million	2010 \$ million	2011 \$ million	2010 \$ million
<b>Non-current assets</b>				
Property, plant and equipment	23,344.3	22,405.4	23.2	21.9
Intangible assets	3,823.1	3,702.5	5.1	4.8
Subsidiaries	-	-	6,583.9	6,547.7
Associates and joint venture	1,277.2	1,193.2	-	-
Other investments	6.6	5.9	359.0	359.0
Other non-current assets	288.7	274.5	20.7	15.4
Deferred tax assets	285.0	194.9	-	-
	29,024.9	27,776.4	6,991.9	6,948.8
<b>Current assets</b>				
Inventories	160.9	140.1	-	-
Trade and other receivables	1,692.8	1,400.3	6,442.6	6,677.7
Cash and cash equivalents	234.9	959.0	8.7	12.0
	2,088.6	2,499.4	6,451.3	6,689.7
<b>Total assets</b>	<b>31,113.5</b>	<b>30,275.8</b>	<b>13,443.2</b>	<b>13,638.5</b>
<b>Equity attributable to equity holders of the Company</b>				
Share capital	3,911.9	3,911.9	3,911.9	3,911.9
Reserves	(35.2)	(171.4)	-	-
Accumulated profits	3,966.4	3,042.4	4,857.1	4,460.5
	7,843.1	6,782.9	8,769.0	8,372.4
<b>Non-controlling interests</b>	1,545.0	1,451.8	-	-
<b>Total equity</b>	<b>9,388.1</b>	<b>8,234.7</b>	<b>8,769.0</b>	<b>8,372.4</b>
<b>Non-current liabilities</b>				
Bank loans	4,428.2	6,623.1	-	577.6
Debt obligations	9,942.7	8,356.6	362.3	362.0
Other financial liabilities	1,454.1	948.5	18.2	13.5
Other non-current liabilities	882.7	938.1	1.6	0.4
Deferred tax liabilities	1,503.4	1,397.2	2.5	3.7
	18,211.1	18,263.5	384.6	957.2
<b>Current liabilities</b>				
Trade and other payables	1,884.1	1,688.3	4,206.9	4,146.3
Bank loans	108.4	693.9	-	-
Debt obligations	892.1	908.1	-	74.8
Other financial liabilities	459.7	402.5	67.4	73.3
Provision for taxation	170.0	84.8	15.3	14.5
	3,514.3	3,777.6	4,289.6	4,308.9
<b>Total liabilities</b>	<b>21,725.4</b>	<b>22,041.1</b>	<b>4,674.2</b>	<b>5,266.1</b>
<b>Total equity and liabilities</b>	<b>31,113.5</b>	<b>30,275.8</b>	<b>13,443.2</b>	<b>13,638.5</b>

# Financial Summary

## SUMMARY INCOME STATEMENTS

Year ended 31 March 2011

	Group		Company	
	2011 \$ million	2010 \$ million	2011 \$ million	2010 \$ million
Revenue	7,804.5	6,625.8	440.0	435.3
Other income	415.0	279.7	0.1	-
Expenses				
- Purchased power	(2,867.5)	(2,134.7)	-	-
- Depreciation of property, plant and equipment	(901.4)	(842.8)	(5.3)	(3.6)
- Amortisation of intangible assets	(97.4)	(82.1)	(1.1)	(1.2)
- Maintenance	(765.5)	(621.8)	(3.4)	(2.6)
- Staff costs	(772.4)	(704.2)	(30.9)	(23.0)
- Property taxes	(185.7)	(166.1)	(0.1)	(0.1)
- Other operating expenses	(365.6)	(407.7)	(14.0)	(13.8)
<b>Operating profit before exceptional items</b>	<b>2,264.0</b>	<b>1,946.1</b>	<b>385.3</b>	<b>391.0</b>
Exceptional items				
- Impairment loss on property, plant and equipment	-	(109.3)	-	-
- Impairment loss on intangible assets	-	(930.5)	-	-
- Write-back of provision for working capital charges from regulatory period January 2003 to March 2009	-	33.6	-	-
<b>Operating profit</b>	<b>2,264.0</b>	<b>939.9</b>	<b>385.3</b>	<b>391.0</b>
Finance income	72.9	48.1	45.2	34.4
Finance costs	(1,120.0)	(1,035.6)	(32.8)	(39.4)
Share of profit of associates, net of tax	8.7	2.8	-	-
Share of profit of joint venture, net of tax	64.5	84.4	-	-
<b>Profit before taxation</b>	<b>1,290.1</b>	<b>39.6</b>	<b>397.7</b>	<b>386.0</b>
Tax expense	(198.0)	(152.8)	(1.1)	(1.4)
<b>Profit/(Loss) for the year</b>	<b>1,092.1</b>	<b>(113.2)</b>	<b>396.6</b>	<b>384.6</b>
<b>Profit/(Loss) attributable to:</b>				
Owner of the Company	924.0	(238.2)	396.6	384.6
Non-controlling interests	168.1	125.0	-	-
<b>Profit/(Loss) for the year</b>	<b>1,092.1</b>	<b>(113.2)</b>	<b>396.6</b>	<b>384.6</b>



# Financial Summary

## SUMMARY STATEMENTS OF COMPREHENSIVE INCOME

Year ended 31 March 2011

	Group		Company	
	2011 \$ million	2010 \$ million	2011 \$ million	2010 \$ million
Profit/(Loss) for the year	1,092.1	(113.2)	396.6	384.6
<b>Other comprehensive income</b>				
Translation differences relating to financial statements of foreign operations	180.8	1,494.4	-	-
Effective portion of changes in fair value of cash flow hedges, net of tax	(307.0)	(26.1)	-	-
Reversal of changes in fair value of cash flow hedges included in profit or loss, net of tax	257.9	232.0	-	-
Reversal of changes in fair value of cash flow hedges on recognition of the hedged item on balance sheet, net of tax	16.7	1.5	-	-
Actuarial gain on defined benefit plans, net of tax	3.4	80.8	-	-
<b>Other comprehensive income for the year, net of tax</b>	<b>151.8</b>	<b>1,782.6</b>	<b>-</b>	<b>-</b>
<b>Total comprehensive income for the year</b>	<b>1,243.9</b>	<b>1,669.4</b>	<b>396.6</b>	<b>384.6</b>
<b>Attributable to:</b>				
Owner of the Company	1,060.2	1,231.4	396.6	384.6
Non-controlling interests	183.7	438.0	-	-
<b>Total comprehensive income for the year</b>	<b>1,243.9</b>	<b>1,669.4</b>	<b>396.6</b>	<b>384.6</b>

# Financial Summary

## SUMMARY STATEMENTS OF CHANGES IN EQUITY

Year ended 31 March 2011

	Share capital \$ million	Currency translation reserve \$ million	Hedging reserve \$ million	Other reserve \$ million	Accumulated profits \$ million	Total equity attributable to owner of the Company \$ million	Non-controlling interests \$ million	Total equity \$ million
At 1 April 2009	2,411.9	(1,250.8)	(270.1)	(120.1)	3,280.6	4,051.5	899.6	4,951.1
<b>Total comprehensive income for the year</b>								
Loss for the year	-	-	-	-	(238.2)	(238.2)	125.0	(113.2)
<b>Other comprehensive income</b>								
Translation differences relating to financial statements of foreign subsidiaries	-	1,258.1	-	-	-	1,258.1	236.3	1,494.4
Effective portion of changes in fair value of cash flow hedges, net of tax	-	-	(32.3)	-	-	(32.3)	6.2	(26.1)
Reversal of changes in fair value of cash flow hedges included in profit or loss, net of tax	-	-	178.9	-	-	178.9	53.1	232.0
Reversal of changes in fair value of cash flow hedges on recognition of the hedged item on balance sheet, net of tax	-	-	1.5	-	-	1.5	-	1.5
Actuarial gain on defined benefit plans, net of tax	-	-	-	63.4	-	63.4	17.4	80.8
<b>Total other comprehensive income</b>	-	1,258.1	148.1	63.4	-	1,469.6	313.0	1,782.6
Total comprehensive income for the year	-	1,258.1	148.1	63.4	(238.2)	1,231.4	438.0	1,669.4
<b>Transactions with owner of the Company, recorded directly in equity</b>								
<b>Contributions by and distributions to owner of the Company</b>								
Issue of ordinary shares	1,500.0	-	-	-	-	1,500.0	-	1,500.0
Equity contribution by non-controlling interests	-	-	-	-	-	-	252.1	252.1
Dividends paid to non-controlling interests	-	-	-	-	-	-	(137.9)	(137.9)
<b>Total transactions with owner</b>	1,500.0	-	-	-	-	1,500.0	114.2	1,614.2
At 31 March 2010	3,911.9	7.3	(122.0)	(56.7)	3,042.4	6,782.9	1,451.8	8,234.7

# Financial Summary

## SUMMARY STATEMENTS OF CHANGES IN EQUITY

Year ended 31 March 2011

	Share capital \$ million	Currency translation reserve \$ million	Hedging reserve \$ million	Other reserve \$ million	Accumulated profits \$ million	Total equity attributable to owner of the Company \$ million	Non-controlling interests \$ million	Total equity \$ million
At 1 April 2010	3,911.9	7.3	(122.0)	(56.7)	3,042.4	6,782.9	1,451.8	8,234.7
<b>Total comprehensive income for the year</b>								
Profit for the year	-	-	-	-	924.0	924.0	168.1	1,092.1
<b>Other comprehensive income</b>								
Translation differences relating to financial statements of foreign operations	-	141.1	-	-	-	141.1	39.7	180.8
Effective portion of changes in fair value of cash flow hedges, net of tax	-	-	(209.4)	-	-	(209.4)	(97.6)	(307.0)
Reversal of changes in fair value of cash flow hedges included in profit or loss, net of tax	-	-	185.9	-	-	185.9	72.0	257.9
Reversal of changes in fair value of cash flow hedges on recognition of the hedged item on balance sheet, net of tax	-	-	16.7	-	-	16.7	-	16.7
Actuarial gain on defined benefit plans, net of tax	-	-	-	1.9	-	1.9	1.5	3.4
<b>Total other comprehensive income</b>	-	141.1	(6.8)	1.9	-	136.2	15.6	151.8
<b>Total comprehensive income for the year</b>	-	141.1	(6.8)	1.9	924.0	1,060.2	183.7	1,243.9
<b>Transactions with owner of the Company, recorded directly in equity</b>								
<b>Contributions by and distribution to owner of the Company</b>								
Equity contribution by non-controlling interests	-	-	-	-	-	-	46.4	46.4
Dividends paid to non-controlling interests	-	-	-	-	-	-	(136.9)	(136.9)
<b>Total transactions with owner</b>	-	-	-	-	-	-	(90.5)	(90.5)
At 31 March 2011	3,911.9	148.4	(128.8)	(54.8)	3,966.4	7,843.1	1,545.0	9,388.1

# Financial Summary

## SELECTED NOTES TO THE SUMMARY FINANCIAL STATEMENTS

### 1. *Changes in accounting policies*

The Group has adopted all the new and revised FRSs and Interpretation to FRS (INT FRS) that became mandatory from 1 April 2010. The adoption of these new FRSs and INT FRS has no significant impact to the Group.

### 2. *Contingent liabilities*

#### (a) **Tax audits**

A subsidiary of the Group, SP AusNet, is subject to a tax audit by the Australia Tax Office (ATO) in regard to the following areas:

- deductions claimed in respect of fees imposed under Section 163AA of the *Electricity Industry Act* 1993 in the 1999 to 2001 tax years;
- deductions claimed in respect of intellectual property referable to the 1998 tax year and each subsequent year; and
- the tax cost base of SPI Australia Group Pty Ltd (SPIAG) consolidated group when it joined the SP AusNet Distribution consolidated group on 2 August 2004.

On 31 March 2010, the ATO advised SP AusNet Transmission that it intends to disallow deductions claimed in respect of S163AA imposts, although it has not yet issued an amended assessment to confirm this position. On 7 September 2010, the ATO informed SP AusNet that it will not be liable for any administrative penalties under the *Taxation Administration Act* 1953 in relation to Section 163AA imposts. The ATO also informed SP AusNet of its decision to remit part of the interest charges that would otherwise apply to any subsequent amended assessment.

SP AusNet has not changed its view in regard to the availability of Section 163AA or intellectual property deductions, or its tax cost base for the SPIAG consolidated group. The ultimate timeframe or likely outcomes of the ATO audits are not known.

#### (b) **Victorian February bushfires**

In early February 2009, the state of Victoria was impacted by significant bushfires. The Victorian Government subsequently established a Royal Commission of Inquiry into the Victorian bushfire crisis. The Royal Commission made a number of recommendations that are intended to reduce the occurrence and impact of future bushfires. SP AusNet will continue to work with the Victorian Government, its Powerlines Bushfire Safety Taskforce (the Taskforce) and electricity regulators to scope the recommendations, with a view to making constructive improvements designed to make the electricity network even safer.

# Financial Summary

## SELECTED NOTES TO THE SUMMARY FINANCIAL STATEMENTS

Until the full extent and nature of the recommendations are worked through, it is not possible to estimate the network investment that will result from implementation of the recommendations. The Taskforce is expected to provide its final report by 30 September 2011. It is required to recommend a ten-year plan to reduce bushfire risk accompanied with options for fairly and efficiently recovering the costs of that plan.

SP AusNet is a defendant in litigation that has been brought in connection with the 7 February 2009 bushfires located at Kilmore East and Beechworth, respectively. SP AusNet denies that it was negligent. SP AusNet alleges that its conduct was at all times reasonable, in compliance with technical regulations and reasonable in light of economic regulations applicable to SP AusNet. SP AusNet will vigorously defend these claims.

As part of these legal proceedings, SP AusNet has counterclaimed against several parties. The purpose of the counterclaims is to join other parties where they may be relevant to the Court's consideration of the causes and consequences of the Kilmore East and Beechworth fires, respectively. If SP AusNet's defence of the claims is successful, the counterclaims will become irrelevant and will not be pursued. These matters are complex and are issues for the Court to determine and therefore, it is too early for SP AusNet to speculate on the outcome of any claims which have been instituted by third parties. If these claims are pursued, SP AusNet has liability insurance which specifically provides cover for bushfire liability. SP AusNet reviews its insurance cover annually and ensures it is commensurate with the scale and size of its operations, the risks assessed to be associated with its operations and with industry standards and practice. SP AusNet's bushfire mitigation and vegetation management programmes are audited annually by Energy Safe Victoria. SP AusNet had a "zero" bushfire mitigation index throughout the 2008-09 bushfire season.

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