SMART ENERGY SUSTAINABLE FUTURE

ENERGY MARKET AUTHORITY ANNUAL REPORT 2016/17

ABOUT THE ENERGY MARKET AUTHORITY

The Energy Market Authority (EMA) is a statutory board under the Ministry of Trade and Industry. Our main goals are to ensure a reliable and secure energy supply, promote effective competition in the energy market, and develop a dynamic energy sector in Singapore. Through our work, we seek to forge a progressive energy landscape for sustained growth.

OUR VISION

SMART ENERGY, SUSTAINABLE FUTURE

"Smart Energy" describes how we seek to harness, deliver and utilise energy in an innovative and efficient way. "Sustainable Future" highlights the need to develop robust energy solutions that endure over time.

OUR MISSION

TO FORGE A PROGRESSIVE ENERGY LANDSCAPE FOR SUSTAINED GROWTH

EMA seeks to develop, in partnership with all stakeholders, an energy landscape that is forward-looking, innovative and vibrant. The aim is to create an energy sector that contributes to sustained growth, for the benefit of all Singaporeans.

We will achieve our Mission and Vision through:

- **A Secure Energy Supply**
  We operate the power system and promote the safe use of electricity and gas to ensure that the supply of energy is reliable and secure.
- **A Competitive Energy Market**
  We promote effective competition with a sound regulatory framework that encourages investment and prevents the exercise of market power.
- **A Dynamic Energy Sector**
  We develop and promote the energy industry, facilitating the efficient use of energy, and supporting R&D efforts to secure our energy future.
- **A High Performance Organisation**
  We embrace change and seek continuous improvements in our systems, processes and people.

These four goals reflect the key areas of EMA's work, i.e. system operation, market regulation, industry development and promotion, as well as our own internal drive for organisational excellence.

List of Board Members

MR NG HOW YUE
CHAIRMAN
Permanent Secretary,
Ministry of Law

DR LIEW AH CHOY
MEMBER
Adjunct Professor,
Department of Electrical & Computer Engineering,
National University of Singapore, and
Chief Executive Officer,
EquiVolt Pte Ltd
(Since 1 April 2017)

MR QUEK SEE TIAT
MEMBER
President,
Council for Estate Agencies

MR NG WAI CHOONG
MEMBER
Chief Executive,
Energy Market Authority

MR PEK HAK BIN
MEMBER
Group Chief Executive Officer,
Cronus Energy Pte Ltd

MR THAM MIN YEW RUSSELL
MEMBER
Corporate Vice President,
Regional President,
Asia Business Development,
Applied Materials

MR CHANG MENG TENG
MEMBER
Chairman,
Squire Mech Pte Ltd
(Till 31 March 2017)

PROFESSOR PHANG SOCK YONG
MEMBER
Vice Provost (Faculty Matters),
Celia Moh Chair and Professor of Economics,
Singapore Management University

MR YEAP POH LEONG ANDRE
MEMBER
Senior Partner,
Dispute Resolution,
Head,
International Arbitration,
Rajah and Tann Singapore LLP

MR KON YIN TONG
MEMBER
Managing Partner,
Foo Kon Tan LLP

MS QUAH LEY HOON
MEMBER
Chief Editor (English Current Affairs & International News),
MediaCorp

MR ZIA ZAMAN
MEMBER
Founder and Chief Executive Officer,
LumenLab, and
Senior Vice President and Chief Innovation Officer,
MetLife Innovation Centre Pte Ltd

IN APPRECIATION

We would like to express our appreciation to our former board member, Mr Chang Meng Teng, for his guidance and contribution to EMA.

Senior Management

MR NG WAI CHOONG
Chief Executive

MR YEO YEK SENG
Deputy Chief Executive
Economic Regulation Division

MR KNG MENG HWEE
Deputy Chief Executive
Industry Regulation Division and Power System Operation Division

MR BERNARD NEE
Deputy Chief Executive
Corporate Services Group and Energy Planning & Development Division

MR SOH YAP CHOON
Assistant Chief Executive
Power System Operation Division

MR SOH SAI BOR
Acting Assistant Chief Executive
Economic Regulation Division

Organisation Structure

CORPORATE SERVICES GROUP
- Corporate Communications Department
- Finance & Administration Department
- Human Resource & Organisational Development Department
- Information Technology Department
- Legal Department

ECONOMIC REGULATION DIVISION
- Economic Regulation & Licensing Department
- Market Development & Surveillance Department

ENERGY PLANNING & DEVELOPMENT DIVISION
- Energy Technology & Data Department
- External Relations Department
- Industry Development Department
- Policy & Planning Department

INDUSTRY REGULATION DIVISION
- Electricity Industry Regulation Department
- Gas Industry Regulation Department

POWER SYSTEM OPERATION DIVISION
- Energy Management Systems Department
- Gas System Supervision Department
- Security & Emergency Planning Department
- System Control Department
- System Stability & Planning Department

SECURING SINGAPORE'S ENERGY FUTURE

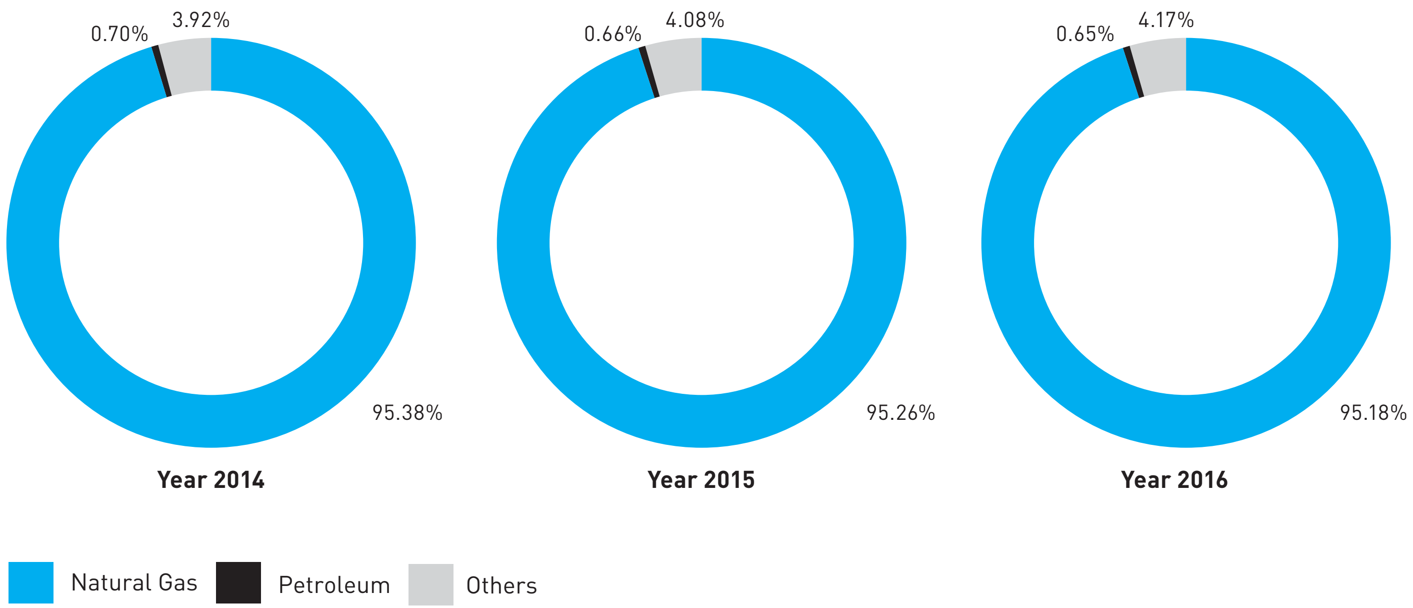
Image courtesy of Danny Santos, Singapore Tourism Board.

Securing Singapore's Energy Future

About 95 percent of our electricity is generated by natural gas. To secure our gas supply, the expansion of the Liquefied Natural Gas (LNG) Terminal to 11 million tonnes per annum will be completed in 3Q 2017. In addition, a nitrogen facility will enable SLNG to receive LNG with varying specifications from more diverse sources. Meanwhile, construction of the fourth storage tank remains on target for 1Q 2018.

EMA appointed Pavilion Gas Pte Ltd and Shell Eastern Trading (Pte) Ltd in October 2016 to meet the next tranche of LNG demand. Licences for the two new LNG importers are expected to commence in 2H 2017. Once the new LNG franchise begins, EMA will allow third-party spot imports and new piped natural gas imports on a case-by-case basis. This will enhance the diversity of Singapore's gas supply sources and encourage greater gas-on-gas competition in the domestic market.

FUEL MIX FOR ELECTRICITY GENERATION



FACILITATING SOLAR DEPLOYMENT

EMA has been taking proactive steps to facilitate solar deployment in a sustainable manner as the technology becomes commercially viable. On the R&D front, EMA is developing solar forecasting capabilities and energy storage systems to support the growing deployment of solar photovoltaic (PV) systems. At the Singapore International Energy Week (SIEW) 2016, EMA launched a solar irradiance heat map on its website. This graphical heat map shows the near real-time variations of solar irradiance across the island.

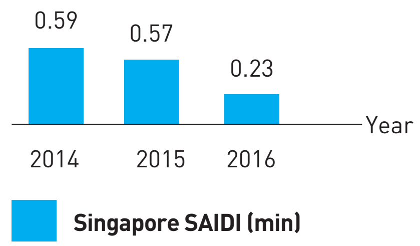
In 2014, the Government announced a plan to raise the adoption of solar energy to 350 MegaWatt peak (MWp) by 2020. Since then, the installed capacity of solar has almost quadrupled, reaching 129.8 MWp in 1Q 2017. Beyond 2020, we plan to further raise the adoption of solar power in our system to 1 GigaWatt peak (GWp). This will support the achievement of Singapore's climate change pledge to reduce our emissions intensity by 36 percent from 2005 levels by 2030.

STRENGTHENING SYSTEM RESILIENCY

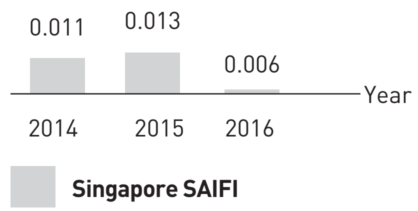
Regular studies done by global energy consultancy DNV GL show that Singapore scored well in terms of grid charges and reliability. We have one of the most reliable electricity grids in the world, with less than 14 seconds (0.23 mins) of interrupted power supply per customer in 2016. This was much lower compared with Osaka (4 mins), Hong Kong (23.4 mins), London (33.6 mins) and New York (20.53 mins).[1]

EMA continued to strengthen our energy system resiliency and reliability by closely supervising the real-time operation of the natural gas transmission system. This would ensure security and better coordination in the operations of the electricity and gas systems, particularly during a gas system emergency.

The LNG Terminal underwent a complete shutdown in November 2016 for tie-in works for a new gas pipeline. Steps were taken with the industry and power generation companies to mitigate the impact of gas disruption on end-users and on electricity pool prices.



SAIDI (System Average Interruption Duration Index) measures the average interruption time per customer in minutes



SAIFI (System Average Interruption Frequency Index) measures the average number of interruptions per customer

[1] 2015 SAIDI figures from DNV GL's Benchmarking Study of Grid Price and Performance Report.

ENHANCING OPERATIONAL EXCELLENCE

EMA continued to work with industry stakeholders to review their maintenance regime as part of enhancing the reliability of the electricity network. The review analysed maintenance practices, plant design, emergency preparedness and standard operating procedures to deal with gas and electricity emergencies. EMA and SP PowerGrid (SPPG) also jointly appointed a consultant to review the latter's maintenance regime. The objective was to review and benchmark against international best practices and recommend areas for improvement.

EMA took the following initiatives to reduce the risks of contractors damaging electricity cables and gas pipelines:

- Developing a regulatory framework for licensees and third-party earthworks contractors to report near-miss incidents. This is to facilitate sharing of learning points and help identify measures to minimise recurrence of such incidents;
- Enhancing SPPG's Letter of Requirements for earthworks in the vicinity of high voltage cables and high pressure gas pipelines. A new provision was included for SPPG to request the earthworks contractor to stop work. This is in the event of damage or suspected damage to an electricity cable or gas pipeline. SPPG could then carry out the necessary investigations and repair works; and
- Establishing a Registered Earthworks Supervisor scheme. This is to ensure site supervisors are trained in cable and gas pipeline damage prevention when supervising their Registered Excavator Operator in carrying out earthworks.

PLANNING FOR EMERGENCY PREPAREDNESS

With cyber threats becoming more advanced and persistent, EMA reviewed its cyber mitigation measures in February 2016, elevating these from best practices to mandatory compliance. EMA also conducted joint cyber system resilience readiness reviews with Senoko Energy, YTL PowerSeraya and SLNG. To enhance our capability in managing cyber security threats and incidents in the power sector, EMA commissioned a Sectorial Detection and Early Warning System in March 2017.

On a national level, EMA participated in emergency exercises with government agencies including the Ministry of Home Affairs and Ministry of Trade & Industry. Such exercises help EMA and the power sector maintain high operational readiness to manage power and gas system incidents during a nationwide emergency.

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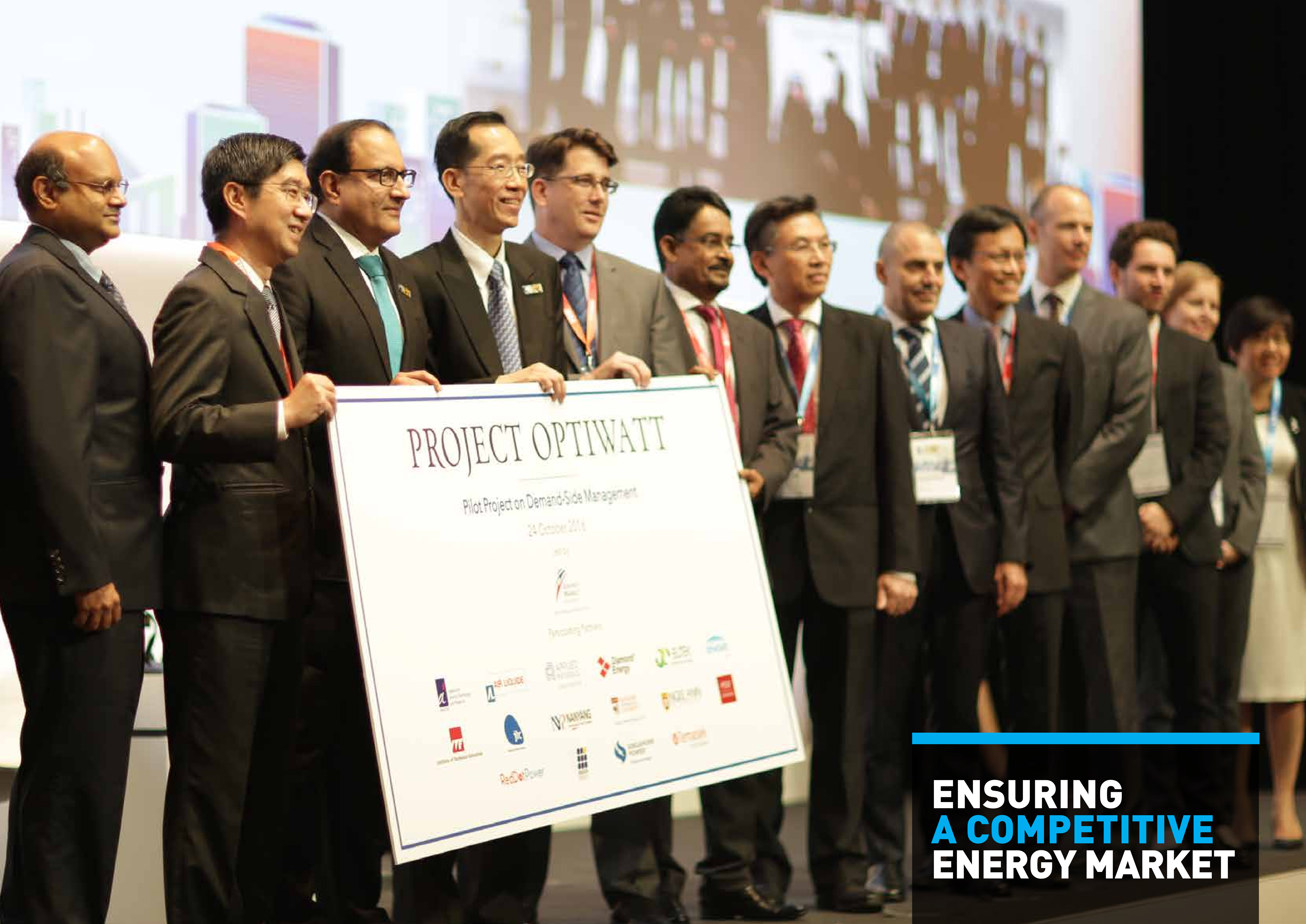


ENSURING A COMPETITIVE ENERGY MARKET

Ensuring a Competitive Energy Market

To encourage efficient investments in the power system infrastructure, EMA sought industry feedback and established a suite of measures to facilitate informed investment decisions. The measures included a land allocation framework for new power stations, as well as the inaugural Singapore Electricity Market Outlook (SEMO) publication.

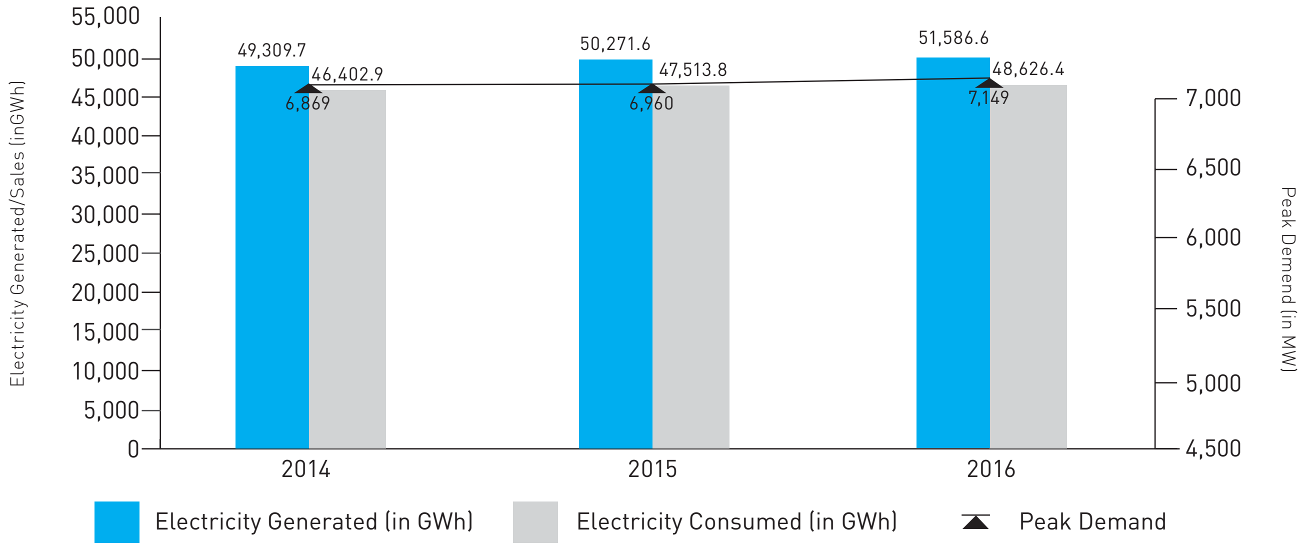
To be published annually, the objective of the SEMO is to offer information and visibility on the longer-term outlook of the energy landscape in Singapore. The inaugural SEMO covered projected supply and demand conditions, as well as a special solar energy section. Here, EMA teamed up with the Solar Energy Research Institute of Singapore to provide an outlook on solar photovoltaic (PV) generation in the city-state. This will help the industry to better understand the characteristics of solar PV systems in Singapore and facilitate investment decisions in this renewable source.

CATALYSING MARKET INNOVATION

In April 2016, EMA launched the Demand Response Programme to allow participants to actively reduce their electricity load and receive payment for doing so.

In addition, EMA is giving Demand-side Management a greater push to encourage consumers to optimise their energy consumption. This is done by shifting demand from peak to non-peak hours, reducing the maximum load that the energy system needs to cater to. Project OptiWatt was thus rolled out in October 2016 as a pilot to demonstrate the viability of Demand-side Management initiatives. This aims to help catalyse industry innovation and consumer engagement. Since its launch, 23 partners from Institutes of Higher Learning, government agencies, companies, electricity retailers, research institutions and the electricity grid operator have signed up to participate in this initiative.

ELECTRICITY GENERATED, CONSUMED AND PEAK DEMAND



Note: Electricity generated reflects the gross generation in the system including electricity produced by the embedded generators. Solar output (generation) is included with effect from 2016 figures. The graph is referenced to statistics that are the most recently available at the time of preparing this report.

PREPARING FOR FULL RETAIL COMPETITION

EMA targets to fully liberalise the retail electricity market in the second half of 2018. This will allow the remaining 1.3 million accounts, mainly households, to buy electricity from retailers of their choice instead of at the regulated tariff from SP Services. We have been working with the industry to develop the implementation framework for Full Retail Competition, including safeguards to protect consumers' interests.

EMA launched a joint Call for Proposal with PUB and SP Group in November 2016. This was to develop and test-bed the integrated remote reading of electricity, town gas and water meters; and to provide timely and useful consumption feedback via consumers' smart mobile devices.

To help potential electricity retailers better understand the requirements of conducting their electricity retail business in Singapore, a checklist was introduced for the application process. Nine new electricity retailer licences were granted in FY2016.

DEVELOPING THE NATURAL GAS MARKET

EMA is working with industry players to develop a Secondary Gas Trading Market (SGTM). The SGTM will provide more flexibility for gas buyers to manage their portfolios and encourage better price discovery. An industry working group has begun deliberating the details.

KEEPING VIGILANT WITH MARKET SURVEILLANCE

EMA conducts surveillance of the energy market to safeguard fair competition and promote efficient market outcomes. Any misconduct or anti-competitive behaviour by our licensees are dealt with swiftly. In 2016, we penalised two electricity retailers for contravening the Code of Conduct for Retail Electricity Licensees. Action was also taken against Paradise Group for gas meter tampering and dishonest consumption of gas at the restaurant chain's 21 outlets. Paradise Group was fined $530,000 by the Court.

EMA also reviewed the Gas Network Code. In consultation with the industry, the penalty for poor offtake performance was increased from $0.05/mmBtu to $0.50/mmBtu.

STRENGTHENING OUR MARKET REGULATORY FRAMEWORK

EMA will continue to strengthen our market regulatory framework to ensure a competitive energy market in the long run. This includes reviewing regulatory instruments such as the Vesting Contract Regime to mitigate the exercise of market power by power generation companies. We decided to gradually phase out vesting contracts and transit to the Balanced Market regime to maintain market and economic efficiency. Under the Balanced Market regime, each generation licensee is subject to a 25 percent capacity market share cap, along with prudent hedging of the unvested non-contestable load.

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FOSTERING A DYNAMIC ENERGY SECTOR

Developing A Dynamic Energy Sector

Under the Research, Innovation and Enterprise 2020 Plan, $46 million has been allocated to spur research into promising energy technologies and build capabilities in smart grids, power utilities and energy storage, including solar forecasting and robotics.

CATALYSING R&D EFFORTS

EMA awarded $17 million to seven R&D projects under the Energy Storage grant call and inaugural Sembcorp-EMA Energy Technology Partnership (SEETP) grant call. A second SEETP grant call followed in February 2017 with the objectives to:

- Inspect pipelines on Jurong Island in a more productive manner through the use of robotics and automation technologies; and
- Utilise low-grade waste heat in a more energy-efficient way in a multi-utilities facility.

With Singapore's energy storage landscape still in its nascent stage, EMA launched a public consultation in October 2016. This sought public feedback on the policy framework for Energy Storage Systems (ESS) in Singapore. This was to ensure that relevant regulations are in place to keep pace with the development of such technologies. The framework would also support evolving business models and innovations around ESS.

In addition, EMA partnered SP Group to launch a grid-level ESS test-bed to evaluate the performance of different ESS technologies under Singapore's hot, humid and highly-urbanised environment. Sandia National Labs, a leading US National Lab in ESS, is providing us with technical advice. The test-bed will support the increasing deployment of solar energy.

Another area EMA is looking to develop is solar forecasting to help us better estimate when, where and how much solar power will be produced. This will allow us to integrate more solar energy into the electricity grid. A Request for Proposal was launched in March 2017, together with the Meteorological Service Singapore, to catalyse applied research and development in solar forecasting. This will help grow our solar forecasting capabilities, and enable us to better manage solar output fluctuations in operating our power system.

PROMOTING ENERGY EFFICIENCY

To help consumers better manage their utilities consumption, EMA, together with SP Services, PUB and City Gas, redesigned the hardcopy utilities bill that was rolled out in August 2016. This incorporated new energy efficiency features such as peer comparison and energy conservation tips.

ATTRACTING TALENT

EMA continued to work with various stakeholders, such as the power industry, the Union of Power and Gas Employees and Institutes of Higher Learning, to deepen skills and develop a strong local power sector workforce.

EMA launched 'Powering Lives Trails', the first-ever series of experiential learning journeys for students that bring engineering concepts to life. They offer access to five energy sites not normally open to the public. These are the Power System Control Centre; Sembcorp Cogen@Banyan power plant; the LNG Terminal; Pulau Ubin Micro-grid Test-bed; and the Singapore District Cooling network. As of 1Q 2017, the Powering Lives Trails has reached out to more than 800 students and educators.

EMA also worked with various partners to widen our reach to Secondary Schools and Junior College students. In June 2016, EMA partnered with the National Climate Change Secretariat and National Research Foundation to organise the inaugural Energy Innovation forum. The event attracted 1,000 stakeholders, including 400 students and teachers, with the aim of fostering knowledge exchange and collaborations in priority energy areas.

Youth@SIEW at the Singapore International Energy Week 2016 served as another platform for us to reach out to 360 students and educators. They learned about emerging industry trends at the Youth Dialogue with Minister for Trade & Industry (Industry) S Iswaran, Founder of Sunseap Group Frank Phuan and General Manager of Sembcorp Power Valerie Lee. The event provided a showcase for students from Institutes of Higher Learning to feature their projects. The students also shared how they benefited from the participation of industry-related activities such as the Powering Lives Trails.

To sustain our momentum of making power engineering the choice of career, EMA partnered with the Ministry of Education to enhance teachers and career counsellors' understanding of the power sector to guide students in their career choices.

DEEPENING SKILL SETS

In addition to the national SkillsFuture movement, EMA launched and awarded five SkillsFuture Study Awards for the Power Sector in 2016. We partnered Institutes of Higher Learning to introduce two Earn-and-Learn Programmes – an Advanced Diploma in Power Engineering by Singapore Polytechnic and the Specialist Diploma in Electrical Design and Operation by Ngee Ann Polytechnic. These have benefited over 30 participants.

EMA also supported the Singapore Institute of Power and Gas (SIPG) by helping to align its courses with the National Energy Competency Framework. We funded the development and rollout of five power generation courses conducted by SIPG.

ESTABLISHING ENERGY THOUGHT LEADERSHIP

The ninth edition of the Singapore International Energy Week (SIEW) 2016 was successfully held from 24 -28 October. EMA's anchor events – the SIEW Opening Keynote Address and Singapore Energy Summit – attracted over 1,400 participants. Minister S Iswaran and International Energy Agency (IEA) Executive Director Dr Fatih Birol jointly announced Singapore as an IEA Association Country. This will allow Singapore to deepen its participation in the global energy dialogue through the biennial IEA Ministerial Meetings, as well as various working-level meetings. In addition, EMA will partner the IEA on two new initiatives:

- A Singapore-IEA regional training hub. This will provide energy training programmes to develop industry-specific capabilities in the region; and
- A Singapore-IEA Forum at the annual SIEW, which will provide a preview of IEA initiatives.

ENHANCING BILATERAL ENGAGEMENT

EMA continued to raise Singapore's profile in global energy discussions and advance our energy interests in key regional and international fora, including ASEAN, APEC and G20. In a key milestone for Singapore's bilateral energy cooperation with the US, EMA signed a Joint Statement of Intent on Clean Energy Cooperation with the US Department of Energy in April 2016. This will provide a framework to identify and achieve shared energy goals between the two countries.

EMA organised the inaugural Energy Access Forum in collaboration with the United Nations Economic and Social Commission for Asia and the Pacific and the US State Department at SIEW 2016. A Memorandum of Understanding (MOU) was also signed with UAE's Sharjah Electricity and Water Authority (SEWA) at SIEW 2016. The MOU will open up more opportunities for our energy-related companies to provide their products and services to SEWA.

GREATER DISSEMINATION OF ENERGY STATISTICS

EMA launched the sixth Singapore Energy Statistics (SES) publication at the Energy Innovation event in June 2016. This is part of our data outreach efforts to both local and international players in the energy scene. The publication covered a comprehensive scope of energy topics. It was complemented by a microsite to increase data accessibility to users.

FOSTERING A HIGH PERFORMANCE ORGANISATION

Fostering a High Performance Organisation

EMA regularly reviews its rules and regulatory requirements, as well as those of its licensees, with the view to lower business costs and increase flexibility for business and household consumers. Enhancements implemented include shortening the lead time for switching retailers from eight business days to two business days; and streamlining the wholesaler (demand-side participation) and wholesaler (interruptible load) licences to one licence.

EMA achieved a score of 80.1 for the Pro-Enterprise Ranking Survey in 2016; higher than its target of 75. Our pro-enterprise efforts were recognised with the following two awards:

- Silver Public Sector – for facilitating the deployment of solar by reducing compliance cost through innovative pro-business solutions;
- Bronze Public Sector – for creating vibrancy in the electricity retail market through a futures market.

ENHANCING STAFF BENEFITS

EMA values the Amalgamated Union of Statutory Board Employees as a strategic partner. We consult the Union regularly on staff matters to enhance the work environment and staff engagement in EMA. This strong partnership and close collaboration led to the successful completion of the 2016 Collective Agreement. This will bring about enhanced benefits that cater to the well-being and work-life needs of our EMA colleagues.

GIVING BACK TO SOCIETY

EMA partnered with the caregivers and elderly members of our adopted charity, Caregiving Welfare Association (CWA), to design and develop EMA's Season's Greetings cards for 2016. We also celebrated and sponsored a Lunar New Year lunch for CWA's elderly. Our Corporate Social Responsibility efforts saw EMA colleagues raise over $22,000 for CWA. This will help sponsor the association's therapy sessions, health talks and exercise equipment for the elderly and their caregivers.

FINANCIAL HIGHLIGHTS

FOR FY 2016/17

Financial Highlights for FY2016/17

For the year ended 31 March 2017, the Authority achieved a lower net surplus of $2.332 million, as compared with $2.971 million surplus in the previous year.

FINANCIAL RESULTS

	FY2016/17 $ Million	FY2015/16 $ Million
Operating revenue	62.600	61.497
Operating expenses	(64.448)	(70.090)
Operating deficit	(1.848)	(8.593)
Government grant	0.995	8.632
Non-operating revenue	3.665	3.542
Surplus before contribution to GCF	2.812	3.581
Contribution to GCF	(0.480)	(0.610)
Net surplus after GCF	2.332	2.971

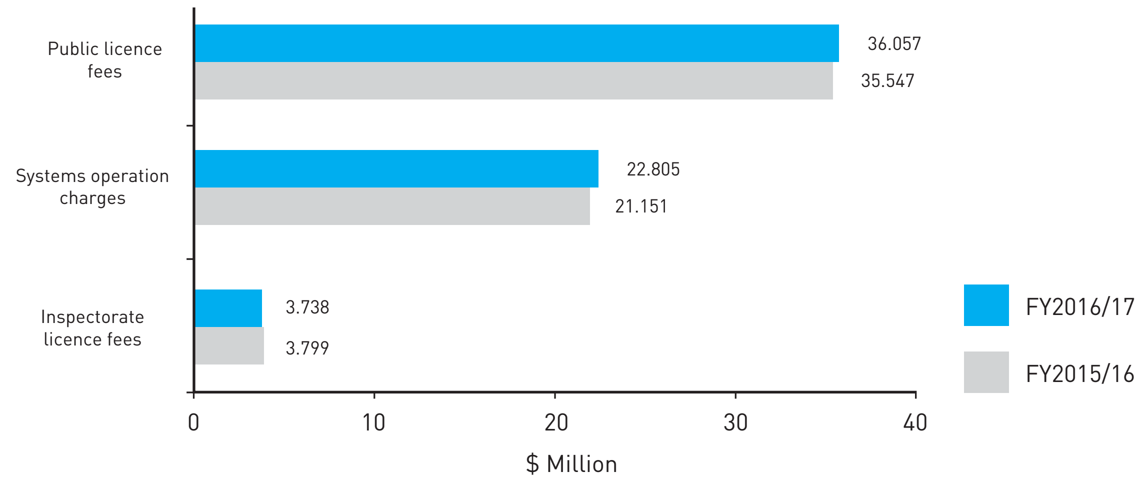
CAPITAL EXPENDITURE

Capital expenditure incurred for the Authority was $1.759 million. This included $1.435 million for IT system developments and $0.324 million for other purchases such as minor office renovation, replacements of furniture & fittings and equipment.

OPERATING REVENUE

Operating revenue for the Authority was $62.600 million for FY2016/17, with breakdown in the graph below.

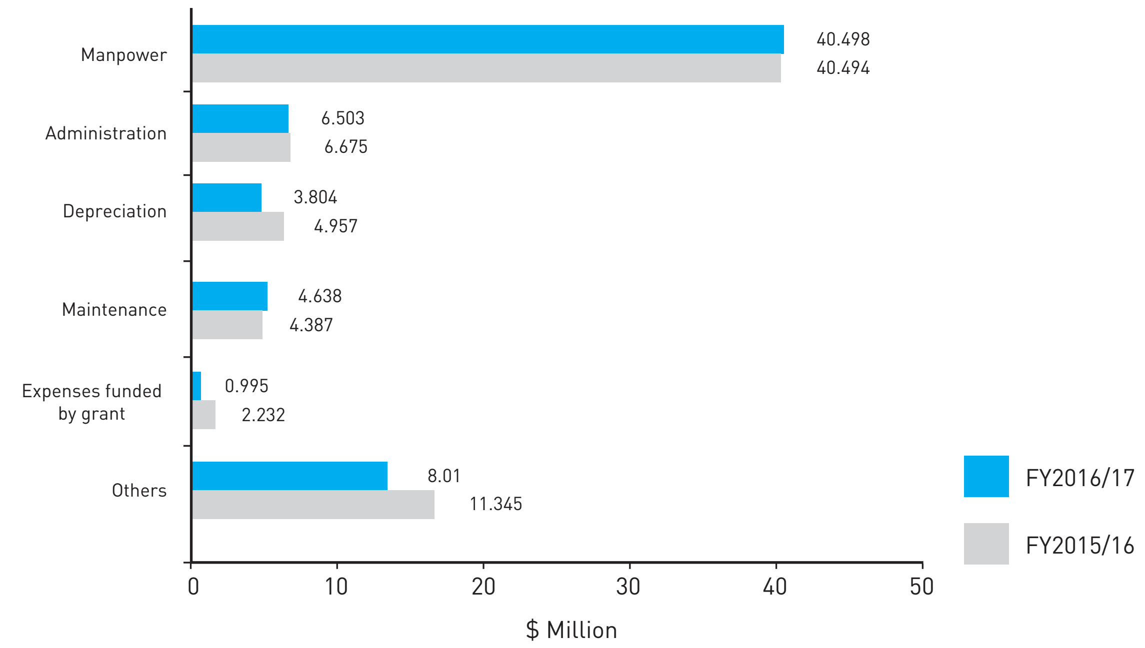
OPERATING REVENUE CATEGORY



OPERATING EXPENSES

Operating expenses for the Authority totaled $64.448 million for the year. The breakdown is shown below.

OPERATING EXPENSES CATEGORY



ANNUAL FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2017

Independent Auditor's Report

For the financial year ended 31 March 2017

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ENERGY MARKET AUTHORITY OF SINGAPORE

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

OUR OPINION

In our opinion, the accompanying financial statements of Energy Market Authority of Singapore (the "Authority") are properly drawn up in accordance with the provisions of the Energy Market Authority of Singapore Act, Chapter 92B (the "Act") and Statutory Board Financial Reporting Standards ("SB-FRSs") so as to present fairly, in all material respects, the state of affairs of the Authority as at 31 March 2017 and of the results, changes in equity and cash flows of the Authority for the financial year ended on that date.

What we have audited

The financial statements of the Authority comprise:
- the balance sheet as at 31 March 2017;
- the statement of comprehensive income for the year then ended;
- the statement of changes in equity for the year then ended;
- the statement of cash flows for the year then ended; and
- the notes to the financial statements, including a summary of significant accounting policies.

Basis for Opinion

We conducted our audit in accordance with Singapore Standards on Auditing ("SSAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report.

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

Independence

We are independent of the Authority in accordance with the Accounting and Corporate Regulatory Authority ("ACRA") Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities ("ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the provisions of the Act and SB-FRSs, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

A statutory board is constituted based on its Act and its dissolution requires Parliament's approval. In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless there is intention to wind up the Authority or for the Authority to cease operations.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit 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 Authority's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report On Other Legal and Regulatory Requirements

Opinion

In our opinion:

(a) the receipts, expenditure, investment of moneys and the acquisition and disposal of assets by the Authority during the year are, in all material respects, in accordance with the provisions of the Act.

(b) proper accounting and other records have been kept, including records of all assets of the Authority whether purchased, donated or otherwise.

Basis for Opinion

We conducted our audit in accordance with SSAs. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Compliance Audit section of our report. We are independent of the Authority in accordance with the ACRA Code together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on management's compliance.

Responsibilities of Management for Compliance with Legal and Regulatory Requirements

Management is responsible for ensuring that the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Act. This responsibility includes implementing accounting and internal controls as management determines are necessary to enable compliance with the provisions of the Act.

Auditor's Responsibilities for the Compliance Audit

Our responsibility is to express an opinion on management's compliance based on our audit of the financial statements. We planned and performed the compliance audit to obtain reasonable assurance about whether the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Act.

Our compliance audit includes obtaining an understanding of the internal control relevant to the receipts, expenditure, investment of moneys and the acquisition and disposal of assets; and assessing the risks of material misstatement of the financial statements from non-compliance, if any, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Because of the inherent limitations in any accounting and internal control system, non-compliances may nevertheless occur and not be detected.

PricewaterhouseCoopers LLP
Public Accountants and Chartered Accountants
Singapore, 20 June 2017

Statement of Comprehensive Income

For the financial year ended 31 March 2017

	Note	2016/17 $'000	2015/16 $'000
Operating revenue	3	62,600	61,497
Operating expenses	3	(64,448)	(70,090)
Operating deficit		(1,848)	(8,593)
Government grant	3	995	8,632
Operating (deficit)/surplus after grant		(853)	39
Non-operating revenue	4	3,665	3,542
Surplus before contribution to Government Consolidated Fund ("GCF")		2,812	3,581
Contribution to GCF	5	(480)	(610)
Surplus for the year		2,332	2,971
Other comprehensive income		–	–
Total comprehensive income		2,332	2,971

The financial statements as set out on pages 36 – 61 have been authorised for issue by the Authority.

NG HOW YUE
CHAIRMAN

NG WAI CHOONG
CHIEF EXECUTIVE

The accompanying notes form an integral part of these financial statements.

Balance Sheet

As at 31 March 2017

	Note	2016/17 $'000	2015/16 $'000
EQUITY			
Capital account	11	86,674	86,674
Specific funds	10	19,886	19,884
Accumulated surplus		78,845	76,515
Total equity		185,405	183,073
Represented by:			
ASSETS			
Non-current assets			
Fixed assets	6	7,775	9,825
Other receivables	7	10,639	8,982
Loan receivables	12	373,461	11,137
Interest receivables	13	2,147	641
		394,022	30,585
Current assets			
Other receivables and prepayments	7	4,037	4,614
Cash and cash equivalents	8	135,988	78,720
Loan receivables	12	-	82,084
Interest receivables	13	88	336
		140,113	165,754
Total assets		534,135	196,339
LIABILITIES			
Current liabilities			
Other payables and provisions	9	13,380	12,256
Provision for contribution to Government Consolidated Fund ("GCF")		480	610
Interest payables	13	88	-
		13,948	12,866
Non-current liabilities			
Loan payables	12	333,461	-
Interest payables	13	921	-
Provision for office reinstatement		400	400
		334,782	400
Total liabilities		348,730	13,266
Net assets		185,405	183,073

The accompanying notes form an integral part of these financial statements.

Statement of Changes in Equity

For the financial year ended 31 March 2017

	Capital account (Note 11) $'000	Specific funds (Note 10) $'000	Accumulated surplus $'000	Total equity $'000
At 1 April 2015	86,674	37,406	78,126	202,206
Total comprehensive income for the year	–	(116)	3,087	2,971
Dividends paid to the Government	–	–	(22,104)	(22,104)
Transfer during the year	–	(17,406)	17,406	–
At 31 March 2016 and at 1 April 2016	86,674	19,884	76,515	183,073
Total comprehensive income for the year	–	–	2,332	2,332
Transfer during the year	–	2	(2)	–
At 31 March 2017	86,674	19,886	78,845	185,405

The accompanying notes form an integral part of these financial statements.

Statement of Cash Flows

For the financial year ended 31 March 2017

	Note	2016/17 $'000	2015/16 $'000
Cash flows from operating activities			
Surplus before contribution to Government Consolidated Fund ("GCF")		2,812	3,581
Adjustments for:			
Depreciation of fixed assets	6	3,804	4,957
Loss on disposal of fixed assets	4	5	1
Grants from the Government	3	(995)	(8,632)
Interest income	4	(3,254)	(2,878)
		2,372	(2,971)
Changes in working capital:			
Increase in other receivables and prepayments		(1,440)	(9,511)
Increase in other payables		988	1,889
Cash generated from operations		1,920	(10,593)
Payment to GCF		(610)	(4,529)
Net cash provided by/(used in) operating activities		1,310	(15,122)
Cash flows from investing activities			
Purchase of fixed assets		(1,848)	(1,825)
Purchase of fixed assets (funded by grant)		(375)	(456)
Interest income received from funds managed under Centralised Liquidity Management		2,255	1,570
Loan repayment from / (made to) SPS		82,084	(82,084)
Interest income received from SPS		1,110	–
Loan made to SLNG		(28,863)	–
Net cash provided by/(used in) investing activities		54,363	(82,795)
Cash flows from financing activities			
Payment of dividends to the Government		–	(22,104)
Grants received from the Government		995	9,133
Grants received for purchase of fixed assets		600	456
Net cash provided by/(used in) financing activities		1,595	(12,515)
Net increase/(decrease) in cash and cash equivalents		57,268	(110,432)
Cash and cash equivalents at beginning of year		78,720	189,152
Cash and cash equivalents at end of year	8	135,988	78,720

The accompanying notes form an integral part of these financial statements.

Notes to the Financial Statements
For the financial year ended 31 March 2017

These notes form an integral part of and should be read in conjunction with the accompanying financial statements.

1. GENERAL INFORMATION

Energy Market Authority of Singapore (the "Authority") is a statutory board established in the Republic of Singapore under the Energy Market Authority of Singapore Act (Chapter 92B) and has its registered office at 991G Alexandra Road, #01-29, Singapore 119975.

The principal activities of the Authority are to create and regulate a competitive market framework for the electricity and gas industries as well as district cooling in designated areas. It also undertakes the system operation function of the electricity industry and energy development of Singapore.

2. SIGNIFICANT ACCOUNTING POLICIES

2.1 Basis of preparation

The financial statements of the Authority are prepared in accordance with the applicable requirements of the EMA Act and Statutory Board Financial Reporting Standards ("SB-FRS") including related interpretations ("INT SB-FRS") and Guidance Notes as promulgated by the Accountant-General under historical cost convention, except as disclosed in the accounting policies below.

The preparation of these financial statements in conformity with SB-FRS requires management to exercise its judgement in the process of applying the Authority's accounting policies. It also requires the use of certain critical accounting estimates and assumptions.

Interpretations and amendments to published standards effective in 2016

On 1 April 2016, the Authority adopted the new or amended SB-FRS and INT SB-FRS that are mandatory for application for the financial year. Changes to the Authority's accounting policies have been made as required, in accordance with the transitional provisions in the respective SB-FRS and INT SB-FRS.

The adoption of these new or amended SB-FRS and INT SB-FRS did not result in substantial changes to the accounting policies of the Authority and had no material effect on the amounts reported for the current or prior financial years.

Notes to the Financial Statements
For the financial year ended 31 March 2017

2.2 Revenue recognition

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Authority and the revenue can be reliably measured, regardless of when the payment is made. Revenue is measured at the fair value of consideration received or receivable, taking into account contractual defined terms of payment and excluding taxes or duties. In particular:

(a) Licence fees from public licensees are recognised as income on an accrual basis;
(b) Licence fees from inspectorate licensees are recognised as income upon issue of licence;
(c) System operation charges are recognised as income on an accrual basis;
(d) Penalty revenue is recognised at the point of collection of settlement; and
(e) Interest revenue is recognised on an accrual basis.

2.3 Employee benefits

Employee benefits are recognised as an expense.

(a) *Defined contribution scheme*

The Authority makes contributions to the Central Provident Fund ("CPF") scheme in Singapore, as required by law. Contributions to national pension schemes are recognised as an expense in the period in which the related service is performed.

(b) *Employee leave entitlement*

Employee entitlements to annual leave are recognised when they accrue to the employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the reporting date.

2.4 Operating lease payments

Leases where substantially all risks and rewards incidental to ownership are retained by the lessors are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessors) are recognised in profit or loss on a straight-line basis over the period of the lease.

Notes to the Financial Statements
For the financial year ended 31 March 2017

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.5 Fixed assets

On 1 April 2001, with the establishment of the Energy Market Authority, the fixed assets of the former Regulation Department of the Public Utilities Board were vested in the Authority at net carrying amounts.

Fixed assets are recognised at cost less accumulated depreciation and accumulated impairment losses.

Subsequent expenditure relating to fixed assets that has already been recognised is added to the carrying amount of the asset only when it is probable that future economic benefits associated with the item will flow to the Authority and the cost of the item can be measured reliably. All other repair and maintenance expenses are recognised in profit or loss when incurred.

Depreciation is calculated using the straight-line method to allocate their depreciable amounts over their estimated useful lives as follows:

	Useful lives
Computer systems	3 - 5 years
Microcomputer and software	3 years
Vehicles	6 years
Office setup / Furniture and fittings	3 - 7 years
Office / Work equipment	3 years

Fixed assets costing less than $2,000 are fully depreciated in the following month of purchase by the Authority.

The residual values, estimated useful lives and depreciation method of fixed assets are reviewed, and adjusted as appropriate, at each balance sheet date. The effects of any revision are recognised in profit or loss when the changes arise.

The cost of an item of property, plant and equipment initially recognised includes its purchase price, projected costs of dismantlement, removal or restoration and any other costs that are directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Notes to the Financial Statements
For the financial year ended 31 March 2017

2.6 Impairment of non-financial assets

Fixed assets are tested for impairment whenever there is any objective evidence or indication that these assets may be impaired.

For the purpose of impairment testing, the recoverable amount (i.e. the higher of the fair value less cost to sell and the value-in-use) is determined on an individual asset basis unless the asset does not generate cash inflows that are largely independent of those from other assets. If this is the case, the recoverable amount is determined for the cash-generating unit (CGU) to which the asset belongs.

If the recoverable amount of the asset or (CGU) is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount.

The difference between the carrying amount and recoverable amount is recognised as an impairment loss in profit or loss.

An impairment loss for an asset is reversed only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The carrying amount of this asset is increased to its revised recoverable amount, provided that this amount does not exceed the carrying amount that would have been determined (net of accumulated depreciation) had no impairment loss been recognised for the asset in prior years.

A reversal of impairment loss for an asset is recognised in profit or loss.

2.7 Loans and receivables

Bank balances, receivables and loans are initially recognised at fair value plus transaction costs and subsequently carried at amortised cost using the effective interest method, less accumulated impairment losses.

The Authority assesses at each balance sheet date whether there is objective evidence that a financial asset or a group of financial assets is impaired and recognises an allowance for impairment when such evidence exists. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy and default or significant delay in payments are objective evidence that these financial assets are impaired.

Notes to the Financial Statements
For the financial year ended 31 March 2017

2.7 Loans and receivables (continued)

The carrying amount of these assets is reduced through the use of an impairment allowance account which is calculated as the difference between the carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate. This amount of impairment is recognised in profit or loss.

These assets are presented as current assets except for those that are expected to be realised later than 12 months after the balance sheet date, which are presented as non-current assets.

2.8 Payables

Other payables represent liabilities for goods and services provided to the Authority prior to the end of financial year which are unpaid. They are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business, if longer). Otherwise, they are presented as non-current liabilities.

Other payables are initially recognised at fair value, and subsequently carried at amortised cost using the effective interest method.

2.9 Loan payables

Loans are presented as current liabilities unless the Authority has an unconditional right to defer settlement for at least 12 months after the balance sheet date, in which case they are presented as non-current liabilities.

Loans are initially recognised at their fair values (net of transaction costs) and subsequently carried at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption value is recognised in profit or loss over the period of the loans using the effective interest method.

2.10 Provisions

Provisions are recognised when the Authority has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation and the amount has been reliably estimated.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of economic resources will be required to settle the obligation, the provisions are reversed.

Notes to the Financial Statements
For the financial year ended 31 March 2017

2.11 Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and at banks, cash with Accountant-General's Department ("AGD"), and fixed deposits with banks, which are subject to an insignificant risk of changes in value. Cash with AGD refers to cash that are managed by AGD under Centralised Liquidity Management ("CLM") as set out in the Accountant-General's Circular No. 4/2009 CLM for Statutory Boards and Ministries.

2.12 Currency translation

The financial statements are presented in Singapore Dollar, which is the functional currency of the Authority.

Transactions in a currency other than the functional currency ("foreign currency") are translated into the functional currency using the exchange rates at the dates of the transactions. Currency exchange differences resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at the closing rates at the balance sheet date are recognised in profit or loss.

Foreign exchange gains and losses that relate to borrowings are presented in the income statement within 'finance expenses'. All other foreign exchange gains and losses impacting profit or loss are presented in the income statement within 'other gains/losses'. Non-monetary items measured at fair values in foreign currencies are translated using the exchange rates at the date when the fair values are determined. Currency translation differences on these items are included in the fair value reserve.

2.13 Capital

Ordinary shares issued are classified in capital account.

2.14 Dividends

Dividends to the Authority's shareholders are recognised when the dividends are approved for payment.

Notes to the Financial Statements

For the financial year ended 31 March 2017

3. SURPLUS BEFORE CONTRIBUTION TO GOVERNMENT CONSOLIDATED FUND ("GCF")

	Note	2016/17 $'000	2015/16 $'000
Operating revenue			
Regulatory fees			
- Public licence fees		36,057	35,547
- Other licence fees		3,738	3,799
Systems operation charges		22,805	22,151
		62,600	61,497
Operating expenses			
Manpower	3a	(40,498)	(40,494)
Administration	3b	(6,503)	(6,675)
Depreciation of fixed assets		(3,804)	(4,957)
Maintenance		(4,638)	(4,387)
Others		(9,005)	(13,577)
		(64,448)	(70,090)
Operating deficit		(1,848)	(8,593)
Government grant		995	8,632
(Deficit)/surplus after government grant		(853)	39
Non-operating revenue	4	3,665	3,542
Surplus before contribution to GCF		2,812	3,581

(a) Manpower expenses include the following:

	2016/17 $'000	2015/16 $'000
Salaries and salary-related expenses	33,638	33,619
CPF contributions	3,876	3,698

(b) Administration expenses include the following:

	2016/17 $'000	2015/16 $'000
Operating lease expenses	3,666	3,696

Notes to the Financial Statements

For the financial year ended 31 March 2017

4. NON-OPERATING REVENUE

	2016/17 $'000	2015/16 $'000
Interest earned	3,254	2,878
Loss on disposal of fixed assets	(5)	(1)
Penalty charges/fines	302	143
Miscellaneous income under LNG Aggregator Agreement	8	333
Others	106	189
	3,665	3,542

5. CONTRIBUTION TO GOVERNMENT CONSOLIDATED FUND ("GCF")

In lieu of income tax, the Authority is required to make contribution to the GCF in accordance with the Statutory Corporations (Contributions to Consolidated Fund) Act. The contribution is based on 17% (FY2015/16: 17%) of the surplus of the Authority for the financial year.

Notes to the Financial Statements
For the financial year ended 31 March 2017

6. FIXED ASSETS

	Computer systems $'000	Micro-computer and software $'000	Vehicles $'000	Office setup/ furniture & fittings $'000	Office/ work equipment $'000	Project-in-progress $'000	Total $'000
Cost							
At 1 April 2015	27,870	1,333	83	5,392	475	447	35,600
Additions	131	55	–	34	31	1,548	1,799
Disposals	(227)	(20)	–	(56)	(25)	–	(328)
Reclassifications	824	–	–	–	–	(824)	–
At 31 March 2016 and at 1 April 2016	28,598	1,368	83	5,370	481	1,171	37,071
Additions	425	73	–	297	27	937	1,759
Disposals	(4,100)	(258)	–	(394)	(107)	–	(4,859)
Reclassifications	1,084	–	–	–	–	(1,084)	–
At 31 March 2017	26,007	1,183	83	5,273	401	1,024	33,971
Accumulated depreciation							
At 1 April 2015	16,726	1,040	41	4,416	393	–	22,616
Depreciation charge for the financial year	4,035	166	14	711	31	–	4,957
Disposals	(227)	(20)	–	(55)	(25)	–	(327)
At 31 March 2016 and at 1 April 2016	20,534	1,186	55	5,072	399	–	27,246
Depreciation charge for the financial year	3,310	199	14	234	47	–	3,804
Disposals	(4,095)	(258)	–	(394)	(107)	–	(4,854)
At 31 March 2017	19,749	1,127	69	4,912	339	–	26,196
Net book value							
At 31 March 2016	8,064	182	28	298	82	1,171	9,825
At 31 March 2017	6,258	56	14	361	62	1,024	7,775

Notes to the Financial Statements
For the financial year ended 31 March 2017

7. OTHER RECEIVABLES AND PREPAYMENTS

	Note	2016/17 $'000	2015/16 $'000
Non-current assets:			
Deposits		1,432	1,483
Other receivables	7a	9,207	7,499
		10,639	8,982
Current assets:			
Accrued interest income		1,307	1,667
Other receivables		1,884	1,070
Deposits		117	–
Current portion of loans and receivables		3,308	2,737
Prepayments		729	1,877
		4,037	4,614

(a) Other receivables relate to expenses incurred on a development project. This amount is recoverable from the future operator or reimbursed by the Government.

Notes to the Financial Statements

For the financial year ended 31 March 2017

8. CASH AND CASH EQUIVALENTS

	Note	2016/17 $'000	2015/16 $'000
Cash with AGD	8a	**135,988**	78,720
Cash and cash equivalents per balance sheet		**135,988**	78,720

a) Cash with the Accountant-General's Department ("AGD") refers to cash that are managed by AGD under Centralised Liquidity Management as set out in the Accountant-General's Circular No. 4/2009 Centralised Liquidity Management for Statutory Boards and Ministries; and

(b) The interest rate of cash with AGD, defined as the ratio of the interest earned to the average cash balance ranges from 1.24% to 1.49% per annum (FY 2015/16: 1.06% to 1.46% per annum).

9. OTHER PAYABLES

	2016/17 $'000	2015/16 $'000
Other creditors and accruals	**8,942**	7,521
Accrued capital expenditure	**543**	632
Accrual for employee benefits	**2,170**	2,443
Provision for unutilised leave	**1,725**	1,660
	13,380	12,256

Notes to the Financial Statements

For the financial year ended 31 March 2017

10. SPECIFIC FUNDS

The specific funds comprise the Energy Research Development Fund ("ERDF") and Energy Training Fund ("ETF") as follows:

	ERDF $'000	ETF $'000	Total $'000
2016/17			
As at 1 April	–	19,884	19,884
Transfer from accumulated surplus	–	2	2
As at 31 March	–	19,886	19,886
2015/16			
As at 1 April	17,406	20,000	37,406
Disbursements during the year	–	(116)	(116)
Transfer (to)/from accumulated surplus	(17,406)	–	(17,406)
As at 31 March	–	19,884	19,884

The Energy Research Development Fund ("ERDF") was set up to initiate research and development into creating capabilities which may include infrastructure, policies and market signals etc. that would enable the use of emerging technologies as they become commercially viable. ERDF was closed on 26 June 15 and the remaining funds transferred back to accumulated surplus.

The Energy Training Fund ("ETF") was set up in 2015 to co-fund the development of dedicated training programs and training grants to build a strong core of Singaporean technical professionals in the power sector.

The above funds are reviewed periodically and additional contributions or refunds will be made to or from the funds as and when appropriate.

Notes to the Financial Statements
For the financial year ended 31 March 2017

11. CAPITAL ACCOUNT

The capital account comprises the accumulated reserves transferred from the Public Utilities Board ("PUB") to the Authority for its establishment and for the financing of fixed and development assets acquisitions and injection by the Government.

Capital management

The Authority's policy is to maintain a strong capital base so as to maintain market confidence and to sustain future development. There were no changes in the Authority's approach to capital management during the financial year.

12. LOAN RECEIVABLES AND LOAN PAYABLES

As at 31 March 2017, the Authority has three outstanding back-to-back loan agreements signed between April 2014 to April 2015 with Singapore LNG Corporation Pte Ltd ("SLNG Corp") and the Government. Of these, two loan facilities totaling $406 million are to fund the costs for the LNG terminal while one loan facility of $300 million is for general working capital. These loan facilities are unsecured and carry a fixed interest rate that approximated prevailing market rates at the time of issue.

The Authority earlier separately granted a direct loan facility of $40 million to SLNG Corp in February 2013. This loan, fully drawn as at 31 March 2017, is also unsecured and carries a fixed interest rate that approximated prevailing market rates at the time of issue.

During the year, the Authority also granted to SP Services Limited ("SPS") a loan facility of $250 million to fund the settlement of payments, collections and associated costs relating to the Forward Sales Contract Scheme. The loan is unsecured and carries floating interest rate. As at 31 March 2017, net loan amount drawn down was $162 million after amortization of upfront fee which was netted against the carrying amount of the loan at the inception of the loan.

To finance the loan to SPS, the Authority obtained an unsecured bank loan facility of up to $228 million, of which $162 million (after amortization of upfront fee which was netted against the carrying amount of the loan at the inception of the loan) was drawn down as at 31 March 2017. In addition, the Authority also secured uncommitted credit loan facility of $22 million with each of three commercial banks. There were no drawdowns from the uncommitted credit loan facilities.

As all the financing charges related to the Government and bank loans are recovered from SLNG Corp and SPS at cost, the expenses and revenue related to the two loan facilities are netted off in the Statement of Comprehensive Income.

Notes to the Financial Statements
For the financial year ended 31 March 2017

12. LOAN RECEIVABLES AND LOAN PAYABLES (CONTINUED)

(a) Loan receivable from SLNG Corp

	2016/17 $'000	2015/16 $'000
As at 1 April	11,137	73,795
Loan drawdown during the year	200,053	–
Loan repayment during the year	–	(62,658)
As at 31 March	211,190	11,137
Non-current	211,190	11,137

(b) Loan receivable from SPS

	2016/17 $'000	2015/16 $'000
As at 1 April	82,084	–
Loan drawdown during the year	162,271	82,084
Loan repayment during the year	(82,084)	–
As at 31 March	162,271	82,084
Current	–	82,084
Non-current	162,271	–
Total loan receivables	373,461	93,221

(c) Loan payable to the Government

	2016/17 $'000	2015/16 $'000
As at 1 April	–	62,658
Loan drawdown during the year	171,190	–
Loan repayment during the year	–	(62,658)
As at 31 March	171,190	–
Non-current	171,190	–

Notes to the Financial Statements
For the financial year ended 31 March 2017

12. LOAN RECEIVABLES AND LOAN PAYABLES (CONTINUED)

(d) Loan payable to the Bank

	2016/17 $'000	2015/16 $'000
As at 1 April	–	–
Loan drawdown during the year	162,271	–
Loan repayment during the year	–	–
As at 31 March	162,271	–
Non-current	162,271	–
Total loan payables	333,461	–

13. INTEREST RECEIVABLES AND INTEREST PAYABLES

(a) Interest receivable from SLNG Corp

	2016/17 $'000	2015/16 $'000
As at 1 April	641	395
Interest charged during the year	1,506	1,115
Interest repayment during the year	–	(869)
As at 31 March	2,147	641
Non-current	2,147	641

Notes to the Financial Statements
For the financial year ended 31 March 2017

13. INTEREST RECEIVABLES AND INTEREST PAYABLES (CONTINUED)

(b) Interest receivable from SPS

	2016/17 $'000	2015/16 $'000
As at 1 April	336	–
Interest charged during the year	88	336
Interest repayment during the year	(336)	–
As at 31 March	88	336
Current	88	336
Total interest receivables	2,235	977

(c) Interest payable to the Government

	2016/17 $'000	2015/16 $'000
As at 1 April	–	–
Interest charged during the year	921	869
Interest repayment during the year	–	(869)
As at 31 March	921	–
Non-current	921	–

(d) Interest payable to the Bank

	2016/17 $'000	2015/16 $'000
As at 1 April	–	–
Interest charged during the year	88	–
Interest repayment during the year	–	–
As at 31 March	88	–
Current	88	–
Total interest payables	1,009	–

Notes to the Financial Statements

For the financial year ended 31 March 2017

14. OUTSTANDING CAPITAL AND LOAN COMMITMENTS

The Authority has procurement commitments for fixed assets and intangible assets incidental to its ordinary course of business. The outstanding capital commitments as at 31 March 2017 for the Authority amounted to $1.1 million (FY2015/16: $1.1 million).

The Authority has entered into loan agreements with SLNG Corp. The outstanding undrawn loan commitment amounted to $534.8 million (FY2015/16: $734.9 million) which pertains to back-to-back agreements which the Authority signed with the Government of the Republic of Singapore ("the Government").

The Authority has entered into agreement to grant loan facilities to SPS. The outstanding undrawn loan commitment amounted to $86.7 million (FY2015/16: $24.9 million). To finance this loan, the Authority obtained an unsecured bank loan facility of up to $228 million, of which $64.7 million is undrawn as at 31 March 2017. In addition, the Authority also secured uncommitted credit loan facility of $22 million with each of 3 commercial banks. There were no drawdowns from the uncommitted credit loan facilities.

15. OPERATING LEASE COMMITMENTS

The Authority has entered into commercial leases for its office and office equipment. These leases have remaining non-cancellable terms of between one year and five years.

Future minimum rentals under non-cancellable leases are as follows:

Authority as Lessee	2016/17 $'000	2015/16 $'000
Within 1 year	3,770	2,185
After 1 year but within 5 years	2,175	2,081
	5,945	4,266

Authority as Lessor	2016/17 $'000	2015/16 $'000
Within 1 year	62	62
After 1 year but within 5 years	62	124
	124	186

Notes to the Financial Statements

For the financial year ended 31 March 2017

16. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Authority is exposed to financial risks arising from its operations and the use of financial instruments. The key financial risks include interest rate risk, credit risk and liquidity risk. The Authority has established processes to monitor and manage these risks in a timely manner.

The following section provides details regarding the Authority's exposure to the above-mentioned financial risks and the objectives, policies and processes for the management of these risks.

There has been no change to the Authority's exposure to these financial risks or the manner in which it manages and measures the risks.

(a) Interest rate risk

Variable rate instruments	2016/17 $'000	2015/16 $'000
Cash with AGD	135,988	78,720

Surplus cash are placed with AGD (under CLM as set out in the Accountant-General's Circular No. 4/2009 Centralised Liquidity Management for Statutory Boards and Ministries).

	2016/17 $'000	2015/16 $'000
Loan payable to bank	(162,271)	–
Loan receivable from SPS	162,271	–

Sensitivity analysis for interest rate risk

The interest rates for Cash with AGD are based on deposit rates determined by the financial institutions with which the cash are deposited and are expected to move in tandem with market interest rate movements. If the variable interest rate were to increase/decrease by 0.12% (FY2015/16: 0.20%) at the end of the reporting period with all other variables held constant, the Authority's net surplus before GCF will be higher/lower by about $0.2 million (FY2015/16:$0.2 million).

As all financing costs related to the loan payable to bank are recovered from SPS, there is no interest rate risk impact on the net surplus/deficit for the financial year.

Notes to the Financial Statements

For the financial year ended 31 March 2017

16. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

(b) Credit risk

At 31 March 2017, loan and interest receivables due from SLNG Corp and SPS amounted to $213 million (FY2015/16: $12 million) and $162 million (FY2015/16: $82 million), respectively. Management believes that minimal credit risks exist with respect to these receivables.

The carrying amount of other receivables and cash and bank balances represent the Authority's maximum exposure to credit risk. No other financial assets carry a significant exposure to credit risk.

Cash and bank balances are placed with AGD. Management believes that minimal credit risks exist with respect to the funds placed with AGD.

Financial assets that are neither past due nor impaired

Other receivables that are neither past due nor impaired are with creditworthy debtors with good payment record with the Authority.

(c) Liquidity risk

Liquidity risk is the risk that the Authority will encounter difficulty in meeting obligations due to shortage of funds. The Authority's exposure to liquidity risk arises primarily from mismatches of the maturities of non-derivative financial liabilities. To manage liquidity risk, the Authority monitors its net operating cash flows and maintains an adequate level of cash and cash equivalents.

Analysis of financial instruments by remaining contractual maturities

The table below summaries the maturity profile of the Authority's financial assets and liabilities at the end of the reporting period based on contractual undiscounted repayment obligations:

Notes to the Financial Statements

For the financial year ended 31 March 2017

16. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

	Less than 1 year	Between 1 and 5 years	Over 5 years
	$'000	$'000	$'000
2016/17			
Interest payable to bank	(88)	–	–
Loan payable to bank#	–	(176,835)	–
Interest payable to the Government	–	–	(921)
Loan payable to the Government	–	–	(202,774)
Other payables*	(11,655)	–	–
Total net undiscounted financial liabilities	(11,743)	(176,835)	(203,695)
2015/16			
Other payables*	(10,595)	–	–

Excludes amortised upfront fee

* Excludes provision

(d) Fair value measurements

The carrying amounts of cash and cash equivalents, other current receivables, current loan receivables and interest receivables, other current payables and interest payables approximate their respective fair values due to the relatively short-term maturity of these financial instruments.

Fair value of fixed-rate loans is calculated based on the present value of future cash flows, discounted at rate of 2.99% (FY2015/16: 2.83%) per annum which is determined based on the 7-year swap offer rate at the end of the reporting period plus an adequate credit spread.

The Authority classifies fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

(i) quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);

(ii) inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices) (Level 2); and

(iii) inputs for the asset or liability that are not based on observable market data (unobservable inputs (Level 3)

Notes to the Financial Statements
For the financial year ended 31 March 2017

16. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

The fair values are within level 2 of fair value hierarchy:

	Level 2 $'000
2016/17	
Fixed rate loan due from SLNG Corp, including accrued interests	204,752
Fixed rate loan to Government, including accrued interests	(167,274)
2015/16	
Fixed rate loan due from SLNG Corp, including accrued interests	10,992

(e) Financial instruments by category

The carrying amounts of the different categories of financial instruments are as follows:

Financial assets	2016/17 $'000	2015/16 $'000
Other receivables#	13,947	11,719
Cash and cash equivalents	135,988	78,720
Interest receivables	2,235	977
Loan receivables	373,461	93,221

Financial liabilities at amortised cost		
Other payables*	11,655	10,596
Interest payables	1,009	–
Loan payables	333,461	–

Excludes prepayments
* Excludes provision

Notes to the Financial Statements
For the financial year ended 31 March 2017

17. RELATED PARTY TRANSACTIONS

Other than those related party information disclosed elsewhere in the financial statements, there were no significant related party transactions during the year.

Key management personnel compensation

	2016/17 $'000	2015/16 $'000
Authority members' allowance	149	135
Salaries, bonuses and allowances	2,240	2,131
CPF contributions	56	53
	2,445	2,319

18. NEW OR REVISED ACCOUNTING STANDARDS AND INTERPRETATIONS

At the date of authorisation of these financial statements, the Authority has not adopted the following standards that have been issued but not yet effective:

		Effective for annual periods beginning on or after
SB - FRS 109	Financial instruments	1 January 2018
SB - FRS 115	Revenue from contract with customer	1 January 2018
SB - FRS 116	Leases	1 January 2019

Management is reviewing the impact on which the adoption of the above SB-FRS are anticipated to have on the financial statements of the Authority in the period of their initial adoption.

19. AUTHORISATION OF FINANCIAL STATEMENTS

The financial statements of the Authority for the financial year ended 31 March 2017 were authorised for issue in accordance with a resolution of the Authority on 20 June 2017.

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