SMART ENERGY SUSTAINABLE FUTURE

ENERGY MARKET AUTHORITY ANNUAL REPORT 2018/19

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, EMA seeks 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, facilitate the efficient use of energy, and support 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, that is system operation, market and industry regulation, industry development and promotion, as well as our own internal drive for organisational excellence.

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Organisation Structure

CHIEF EXECUTIVE'S OFFICE
- National Energy Transformation Office

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 System Department
- Gas System Department
- Inspectorate Department

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

ENSURING A COMPETITIVE ENERGY MARKET

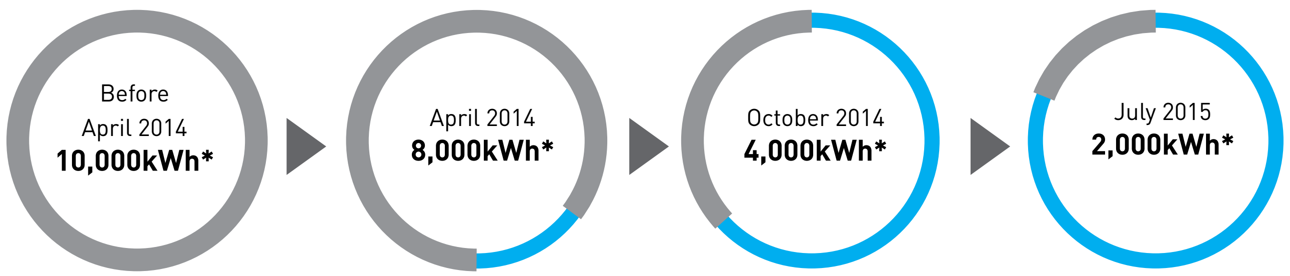
Ensuring a Competitive Energy Market

The libersalisation of Singapore's electricity market has brought the benefits of competition and choice to all consumers. It has been a progressive journey since 2001, which started with large business consumers whose electricity consumption exceeded 2 megawatt [MW]. Over time, the Energy Market Authority (EMA) gradually lowered the consumption eligibility threshold to give more businesses choice and flexibility in their electricity purchases. By 2018, more than 60,000 business accounts – comprising about 79% of total electricity demand – had switched to buying from an electricity retailer.

The soft launch of the Open Electricity Market [OEM] in April 2018 gave about 120,000 household and small business accounts in Jurong the option to buy electricity from a retailer of their choice while enjoying the same electricity supply.

The soft launch also provided EMA, electricity retailers and SP Group the opportunity to gather feedback and fine-tune processes. This was to enhance the consumer experience for the subsequent nationwide rollout. For instance, EMA simplified consumer choices by streamlining the types of standard price plans to two – the Fixed Price Plan and Discount Off the Regulated Tariff Plan. We also introduced a Price Comparison Tool [compare.openelectricitymarket.sg] to better help consumers compare the different standard price plans offered by electricity retailers.

Lowering of Electricity Consumption Threshold Prior to the Open Electricity Market



* Refers to consumption eligibility threshold based on average monthly electricity consumption.

EMA worked with community partners to educate and deepen consumers' understanding of the OEM. This contributed to the initiative's success. EMA conducted over 30 community events, including five roadshows with retailers to help consumers better understand their options. Surveys commissioned by EMA showed high consumer awareness of the OEM.

Soft Launch and Zonal Rollout Schedule

Zone	Postal codes starting with	Launched from
Jurong	60 – 64	1 April 2018
1	58 – 78	1 November 2018
2	53 – 57, 79 – 80, 82 – 83	1 January 2019
3	34 – 52, 81	1 March 2019
4	01 – 33	1 May 2019

On average, consumers who made the switch paid an electricity rate of about 20-30% lower than the regulated tariff. Among those who switched, the majority signed up for a 24-month Standard Price Plan. The Fixed Price Plan also saw a higher take-up rate than the Discount Off the Regulated Tariff Plan.

Besides offering different price plans to cater to consumers' needs, retailers have partnered external parties to offer value-added services and products. These include banks, telecommunications and insurance companies.

With the zonal rollout of the OEM completed since May 2019, all consumers are now able to enjoy the benefits of competitive pricing and innovative offers from electricity retailers.

Switch Rates in Jurong and Zones 1-3 (as of end March 2019)

Jurong	Zone 1	Zone 2	Zone 3
About 44%	About 32%	About 32%	About 20%

Photo credit: Singapore LNG

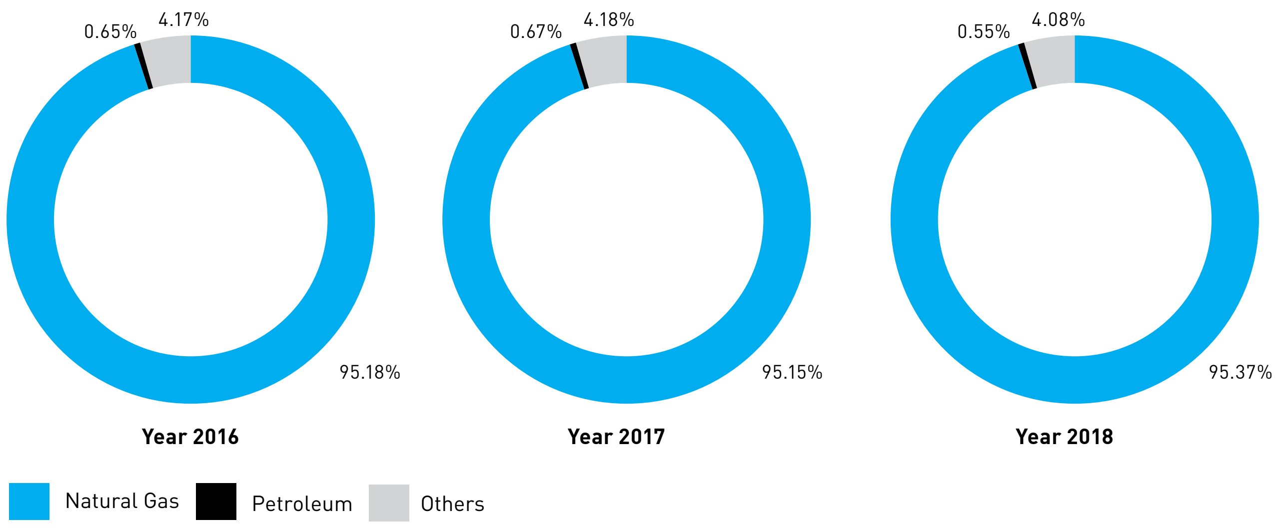
SECURING SINGAPORE'S ENERGY FUTURE

SECURING SINGAPORE'S ENERGY FUTURE

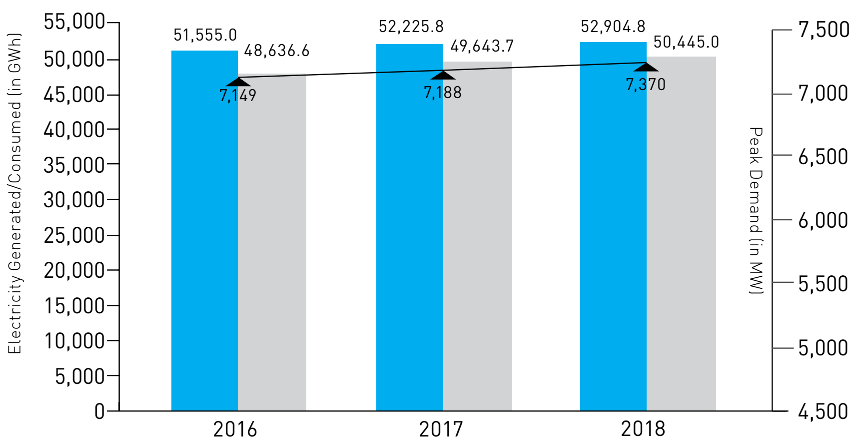
Gas is a key energy resource for Singapore, generating about 95% of electricity in Singapore. Advancements in electricity generation technologies have opened up more options for our power sector. These include the use of renewable energy such as solar photovoltaics (PVs).

Solar adoption rose to around 226 megawatt-peak (MWp) in Q1 2019, up from just 0.4 MWp in 2008. Singapore is expected to reach the committed solar PV capacity of 350 MWp by 2020, and 1 gigawatt-peak (GWp) beyond 2020.

FUEL MIX FOR ELECTRICITY GENERATION



ELECTRICITY GENERATED, CONSUMED AND PEAK DEMAND



Electricity Generated (in GWh)
Electricity Consumed (in GWh)
Peak Demand

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

PREPARING FOR GREATER SOLAR ADOPTION

Solar provides multiple benefits to our energy system. It helps to diversify our sources of energy supply, enhance competition in our market, and provide zero-carbon electricity. EMA has undertaken several measures to promote solar adoption in a sustainable manner.

Among these, EMA is funding $6.2 million to develop Singapore's solar forecasting capabilities. A research consortium was formed comprising the Solar Energy Research Institute of Singapore, Meteorological Service Singapore, the Centre for Remote Imaging, Sensing and Processing, and Experimental Power Grid Centre. The consortium will look into improving the accuracy of solar PV output forecasts and grid management using techniques in weather prediction, remote sensing, machine learning and grid modelling.

We also worked with SP Group to simplify processes for solar PV owners. Businesses no longer have to engage a Licensed Electrical Worker to prepare and certify a report on their solar installations' impact to the grid's power flow. This has saved each business an estimated $3,000 that would have gone into preparing the report.

EMA also lowered the fixed component of the licence fee for larger generators (ranging from 10 MW to 400 MW), including solar installations. Since April 2018, generators that are 10 MW capacity and larger have been paying a reduced fee of $151 per MW.

To prepare for more solar energy in our fuel mix while ensuring grid reliability, EMA launched the final determination paper on the Intermittency Pricing Mechanism (IPM) in October 2018. The IPM enhances the way reserve[2] costs are allocated so that all generation types, including solar energy, pay their fair share. The objective is to encourage solar PV owners to invest in measures to manage intermittency arising from weather conditions such as cloud cover and humidity.

The measures can include energy storage systems and demand-side management to encourage consumers to optimise their energy use. The IPM is projected to be implemented in 2020 once the IT changes are completed. An online tool was also developed to help adopters of intermittent generation sources estimate their reserve costs.

In addition, a solar PV infographic guide was made available on the EMA website to provide businesses with easy access to information on solar energy. The guide gives an overview of schemes available in the market. It also offers useful information such as how to register a solar PV installation and how to receive payment for exporting solar power.

[2] Any disruptions in electricity production, including solar, require backup power – also known as "reserves" – to be drawn from generators on standby. This ensures a stable and reliable supply of electricity for consumers.

SCALING UP WITH ENERGY STORAGE

Energy Storage Systems (ESS) will play an important role as the amount of renewable energy in Singapore increases. With its ability to store electricity on a large scale, for use at opportune times, energy storage can help address intermittency caused by renewables, enhance grid resilience and improve energy efficiency.

With more solar and storage, Singaporeans will enjoy cleaner energy and a lower carbon footprint. EMA has thus been funding and test-bedding ESS solutions to scale up solar adoption. In October 2018, the ACCelerating Energy Storage for Singapore (ACCESS) programme was introduced. This aims to spur deployment of ESS by piloting use cases, designing business models, and facilitating regulatory and market approvals to operate ESS in Singapore.

To learn how storage can enhance the stability of our grid, EMA worked with SP PowerAssets (SPPA) to launch a regulatory sandbox project. This tested the use of ESS to smooth out electricity supply during times of high electricity use in residential areas. As the cost of ESS falls in future, the technology has the potential to provide a more cost-effective solution compared to traditional grid infrastructure upgrades. This, in turn, could translate to net savings for consumers in the form of potentially lower power grid costs.

EMA also partnered SP Group to test-bed Singapore's first utility-scale ESS. This is to better understand the performance of ESS in our hot, humid and highly-dense environment. Findings from the initiative will help us catalyse the use of ESS in Singapore and facilitate greater deployment of solar towards a cleaner energy future.

In October 2018, EMA launched an ESS policy paper. This provided information on the current regulatory framework as well as clarity on how ESS can be used in Singapore. The paper offers guidance on potential applications for ESS in Singapore, such as how this can help integrate higher levels of solar into the grid and manage solar intermittency.

To encourage greater energy storage adoption, EMA is working with various agencies to better define relevant deployment guidelines and standards for ESS. We are also working with the Singapore Civil Defence Force on fire safety guidelines, Enterprise Singapore on technical standards, and the Building and Construction Authority to include ESS into the Green Mark scheme.

ENSURING MARKET SUSTAINABILITY

Apart from looking into how we can better incorporate solar into our energy mix, we also need to ensure that the electricity market remains sustainable for continued system reliability. The market now has 13 GW of generation capacity for a peak demand of 7.4 GW. This has suppressed wholesale prices since 2016.

The current overcapacity situation and excess gas are the result of commercial decisions by the power generation companies (gencos). They had invested heavily in gas-fired Combined Cycle Gas Turbine (CCGT) plants and contracted for significant amounts of regasified Liquefied Natural Gas (LNG). The gencos had made their investment decisions based on their bullish projections of electricity demand growth, which did not materialise.

To help relieve the power sector's overcapacity situation, regulatory changes were effected. From August 2018, flexibility was provided for gencos to retire their steam plants. This will reduce the overcapacity and allow the gencos to lower overhead costs and free up resources. EMA also worked with the gencos to divert their excess LNG purchases to alleviate the oversupply of gas.

Other measures were introduced to provide cost savings to the gencos and promote energy efficiency. We reviewed and lowered the terminal tariff payable by the gencos to the Singapore LNG Corporation (SLNG). This is for the use of its services, including LNG storage facilities. It is estimated to save the gencos around $30 million in total over five years from FY2019 to FY2023.

EMA also launched the Genco Energy Efficiency Grant Call in October 2018, with six gencos participating in it. This is to encourage power generation facilities to be more energy efficient and competitive. This Grant Call is part of the Enhanced Industry Energy Efficiency Package where the Government has set aside over $1 billion for companies to be more energy efficient and reduce carbon emissions.

A scheme was also developed to incentivise gencos to maintain high operational reliability, facilitate development of Singapore's energy market, grow their employees' capabilities, and adopt good labour management practices. All seven gencos are participating in the scheme.

For long-term market sustainability, EMA is considering allowing more LNG importers into the Singapore gas market after the end of the second tranche of LNG imports. This will increase competition and encourage importers to offer contracts with more attractive terms to gas buyers. We are also consulting the industry on developing a Forward Capacity Market (FCM). This will help enhance the Singapore Wholesale Electricity Market, by ensuring electricity supply reliability while minimising long-run costs to consumers. The FCM will function as a market-based auction to procure sufficient power generation capacity in advance, at competitive prices for electricity users.

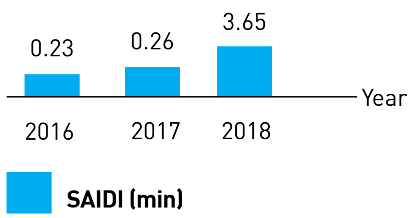
STRENGTHENING SYSTEM RESILIENCY

Major power outages in Singapore have been rare over the past 14 years. However, in FY2018/19, Singapore experienced several supply disruptions.

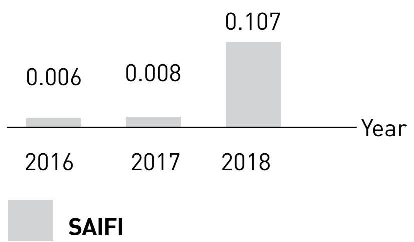
In June 2018, a power outage in the Central Business District occurred due to human error on the part of SP Power Grid (SPPG) and its contractor while carrying out maintenance work at a substation. Two other incidents in early 2019 – Bright Hill and Carlton Hotel – could have been prevented had SPPG officers followed standard operating procedures. Another supply disruption in September 2018 affected 146,500 consumers in multiple parts of Singapore. This was triggered by two successive equipment component failures within the power-generating units at Sembcorp Cogen and Senoko Energy.

EMA subsequently fined SPPG a total of $2.75 million for the three outages it was responsible for. SPPG has since engaged an independent consultant to review and recommend enhancements to its equipment replacement and maintenance regime. It is also putting more resources into monitoring substations and renewing key assets.

Notwithstanding the incidents, Singapore still has one of the most reliable electricity grids in the world, with 3.65 minutes of average disruption time per customer in 2018. EMA is committed to ensuring that our power system remains reliable and secure.



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

The Electricity and Gas Acts were amended to strengthen EMA's regulatory functions. The amendments, which came into effect in May 2019, enable EMA to require measures to be taken to prevent, address or alleviate severe gas shortages. EMA can also compel electricity licensees to implement physical connections between their transmission equipment to enhance system security and reliability. The amendments also increased deterrence for dishonest and fraudulent electricity/gas consumption and meter tampering.

On the cyber front, the Cybersecurity Act was rolled out in September 2018. The Act further strengthens EMA's ability to deal with the prevention and management of cybersecurity incidents for Critical Information Infrastructures (CIIs) in the power sector. EMA is working with CII owners to ensure that the necessary risk assessments and compliance audits are completed under the Act.

EMA's enforcement efforts in FY2018/19 saw 117 cases prosecuted in court. These ranged from electricity cable and gas pipeline damage to meter tampering, to electrical worker and electrical installation licensing offence cases. EMA will continue to keep up enforcement action against such offences.

ENHANCING OPERATIONAL EXCELLENCE

To ensure continued resilience of energy infrastructure, EMA has been conducting reviews with the gencos to establish proper maintenance of the power plants. The review for Senoko Energy and YTL Seraya was carried out in 2016 and 2017 respectively. In 2018, we completed a joint systems review with Tuas Power and PacificLight.

We also undertake regular inspections at SPPG as part of ensuring system reliability. The inspections help ensure that SPPG maintains its equipment and plants as recommended by the Original Equipment Manufacturers.

EMA has also been working with the Defence Science and Technology Agency to review the electricity and gas systems. The review, which started in 2019, aims to improve the robustness and resilience of the systems. Areas of the study include the energy supply chain and interdependencies of the various systems.

The Registered Earthworks Supervisor scheme was introduced in April 2018. As of 15 March 2019, 2,599 earthworks supervisors have been registered. The scheme ensures site supervisors are trained in cable and gas pipeline damage prevention. The objective is to avoid any damage to electricity cables and gas pipes and to minimise disruption to the progress of earthworks.

To ensure the security of electricity supply and to meet demand growth, replacement of ageing infrastructure and installation of new electricity infrastructure were included in the annual rolling transmission development plan. New West Jurong Island 230 kV and Pulau Ayer Merbau III 66 kV substations were commissioned in 2018.

MEETING FUTURE GAS DEMANDS

In March 2018, SLNG expanded its terminal's throughput capacity from 6 million tonnes per annum (Mtpa) to 11 Mtpa. The completion of additional regasification facilities will help Singapore meet its future gas demand.

UPGRADING COMPETENCIES TO ENSURE ELECTRICITY AND GAS SAFETY

EMA worked with the Singapore Institute of Power and Gas (SIPG) and Institutes of Higher Learning (IHLs) (i.e. Singapore Polytechnic and Ngee Ann Polytechnic) to develop bridging courses for workers to upgrade their skill sets. These additional pathways will help build up Singapore's pool of skilled electrical and cable detection workers. The bridging courses started in January 2019.

DEVELOPING A DYNAMIC ENERGY SECTOR

DEVELOPING A DYNAMIC ENERGY SECTOR

Under the Research, Innovation and Enterprise 2020 Plan, EMA continued to promote innovation and build capabilities in smart grids, power utilities and energy storage. Some of the key R&D initiatives announced in 2018 included:

- Energy Resilience Grant Call
  This aims to strengthen the cyber, physical, and market resilience of Singapore's power systems and energy market. A total of $15 million was awarded to seven energy innovations in areas such as blockchain, cybersecurity and condition monitoring. This was announced at EMA's annual industry event, Energy Innovation, in September 2018.

- Exploiting Distributed Generation Programme (EDGE)
  This is a $20 million collaboration between EMA and the Singapore Institute of Technology. EDGE aims to build future capabilities in distributed energy technologies. This will prepare Singapore for an increasingly decentralised energy landscape.

- National Cybersecurity R&D Grant Call 2018
  This partnership with the National Research Foundation (NRF) funds innovative translational research in cybersecurity to help secure the power system. Submitted proposals included solutions such as secure ways to update software patches and smarter detection of abnormal behaviour in the power system.

ACCELERATING MARKET TRANSLATION OF R&D

EMA also stepped up R&D efforts through closer partnerships with the industry and with economic agencies. The latter comprised Enterprise Singapore, the Economic Development Board and NRF. Efforts focused on three sectors:

- Multinational Corporations and Large Local Enterprises
  Our partnership with Sembcorp was renewed with $10 million in funding announced at EMA's annual flagship event, the Singapore International Energy Week (SIEW) 2018. The funds will go towards catalysing R&D and developing manpower capabilities in Singapore's energy sector. Drawing from this successful collaboration, EMA forged two new partnerships with Shell and PSA Singapore in May 2019, amounting to $12 million. The collaboration aims to better translate R&D into solutions, open up test-beds at the partners' facilities, and tap on their overseas networks to access global markets.

- Small and Medium Enterprises (SMEs) and Start-ups
  Collaborations include partnering Enterprise Singapore to grow local SMEs through joint grant calls. We are also collaborating with IHL incubators such as the Nanyang Technological University (NTU) EcoLabs and National University of Singapore (NUS) Graduate Research Innovation Programme. This is to develop their energy startups as well as anchor promising ones from ASEAN via regional incubator programmes.

- Overseas collaborations
  Learning from others helps us build our experience and knowledge. We continued to partner and learn from leading overseas experts such as US Sandia National Labs for energy storage, US National Center Atmospheric Research for solar forecasting, and the Korea Institute of Energy Technology Evaluation and Planning for smart grids.

In 2018, EMA facilitated the launch of two consortia under the Energy Grid 2.0 programme. This was for the Smart Grid and Power Electronics Consortium Singapore and the Cooling Energy Science & Technology Singapore Consortium. This will provide a platform for companies and public researchers to jointly collaborate on energy R&D initiatives. The programme will also help to translate energy-related technologies into deployable system solutions that can be exported.

CATALYSING ENERGY SECTOR DIGITALISATION

As disruptive forces transform the energy landscape, Singapore's power sector will need to turn to new technologies to stay at the forefront. Digitalisation can help to improve productivity, reduce costs, optimise energy consumption and reduce carbon emissions. Innovations thus far include the use of drones for pipeline monitoring, a decision support system to aid power plant operations, as well as smart meters and sensors for real-time condition monitoring.

DEVELOPING AND DEEPENING WORKFORCE SKILLS

To prepare for a future-ready skilled workforce, we have been working with various stakeholders – comprising industry, the Union of Power and Gas Employees (UPAGE), IHLs and government agencies. This is to build up a strong pool of competent power engineering professionals for the fast-evolving energy sector, in both the private and public sectors.

In the Private Sector – Retention & Development

- Skills Framework for Energy and Power
  Announced at SIEW 2018, this framework maps out career progression pathways and skill sets of more than 120 job roles in the sector. It covers both existing and emerging areas. The framework was developed in partnership with industry, UPAGE, SkillsFuture Singapore and Workforce Singapore.

- Study Award for Power Sector
  Launched in 2016, the award targets employees working in power or related sectors. We have given out 50 Study Awards to date.

- Energy Managers Programme
  A Recognition Ceremony was also held in October 2018 for 19 pioneering graduates of the Energy Managers Programme. This is the first leadership programme for high-potential engineers, to groom future energy leaders. The programme was developed by the industry's centralised training institute, the SIPG.

In the Private Sector – Attraction

- Industry Scholarships
  Together with key industry players, we have to date awarded about 60 scholarships under the Energy-Industry Scholarship and Singapore-Industry Scholarship. The scholarships are given to students from the Institute of Technical Education, polytechnics and universities.

- SkillsFuture Earn and Learn Programme (ELP)
  To support the transition of students into the workforce, EMA also worked closely with the industry and IHLs on two ELPs for power engineering-related roles. This is conducted by our IHL partners, Singapore Polytechnic (Advanced Diploma in Power Engineering) and Ngee Ann Polytechnic (Specialist Diploma in Electrical Design and Operation).

- Powering Lives Trails
  These are the power sector's first-ever experiential learning journeys. These bring engineering concepts to life at five unique sites typically closed to the public. Since 2016, the Powering Lives Trails have benefited more than 2,000 students and educators.

- Raising Awareness on Energy Efficiency
  EMA and SP Group have also been raising energy efficiency (EE) awareness among primary and secondary school students. This is done through learning journeys at the SP EE Centre, as well as via interactive mobile exhibitions and community outreach events. The mobile exhibition, in particular, has engaged more than 72,000 students to date.

- Youth@SIEW
  This youth-centric event is held in conjunction with EMA's flagship SIEW event. Participants last year were introduced to:

  - New Science videos co-developed by EMA and the Ministry of Education. Senior Parliamentary Secretary Dr Tan Wu Meng shared that these videos bring to life specific science concepts such as latent heat and radiation safety. This helps students to better appreciate the learnings and applications of the concepts showcased. The videos are currently hosted on the nationwide Student Learning Space, a digital space accessible to some 150,000 students.
  - Ten youths who were nominated for the first-ever batch of Energy Ambassadors. The youths will serve a two-year term and be given opportunities to be exemplars and advocates to their peers and the youth community.

In the Public Service

In October 2017, it was announced that Singapore would build a strong core of power engineering professionals to prepare for a new and transformed energy sector. As part of that expanded mandate to develop power engineering capabilities for the Public Service, EMA worked with the Public Service Division and relevant agencies (e.g. Land Transport Authority (LTA), PUB and National Environment Agency) to implement various initiatives. These included:

- Dialogue with Power Engineering Professionals (PEPS) in the Public Service
  To better understand the motivations and challenges faced by PEPS, Senior Parliamentary Secretary Dr Tan hosted an inaugural dialogue with PEPS in 2018.

- Career fairs
  Dedicated booths were set up to raise awareness for PEPS careers. These were held alongside key energy industry players at the NUS and NTU annual career fairs in January and February 2019.

- Brand perception survey
  A brand perception survey was launched in December 2018. This gathered insights and public perceptions about pursuing a career as a power engineering professional in the Public Service.

ESTABLISHING ENERGY THOUGHT LEADERSHIP

As a key initiative of Singapore's Association with the International Energy Agency (IEA), EMA co-hosted the Singapore-IEA Clean Energy Investment and Financing Training Programme from 28 – 30 August 2018. The programme was designed to help policymakers and professionals from state-owned utilities in Asia build up capabilities in attracting investments and sustainable financing for energy infrastructure. This event attracted more than 100 participants from 16 countries.

For the first time, the 36th ASEAN Ministers on Energy Meeting (AMEM) and Associated Meetings were held together with SIEW, as part of Singapore's Chairmanship of ASEAN. This was preceded by the 36th ASEAN Senior Officials Meeting on Energy from 23 – 27 July 2018.

The 36th AMEM saw all 10 ASEAN Member States reaffirm their commitment to enhance energy resilience and innovation. The following key deliverables were achieved:

- Endorsement of a Capacity Building Roadmap on Energy Investment and Financing. This is part of ASEAN's efforts to enhance regional capabilities to attract investments in energy and develop sustainable financing models;
- Endorsement of a set of key recommendations for the development of Green Building Codes for ASEAN Member States. This is to drive the region's green building industry; and
- Endorsement of a set of recommendations identified in the Gas Advocacy White Paper. This aims to promote the use of LNG and natural gas through a well-coordinated and connected regional gas market.

EMA also hosted a week of discussions on the theme, "Transforming Energy: Invest, Innovate, Integrate", at SIEW 2018. The event ran from 29 October – 2 November 2018 and saw more than 13,000 attendees from over 70 countries. At SIEW, a Memorandum of Understanding (MOU) on Energy Cooperation was signed between ASEAN and the International Renewable Energy Agency. This outlined an action plan to scale up renewable energy deployment for the region.

ENHANCING BILATERAL ENGAGEMENT

In April 2019, EMA and the Federal Energy Regulatory Commission in Washington DC, US, signed an MOU on energy cooperation. The MOU is a significant development in EMA's bilateral engagements with the US. It provides the framework to promote bilateral cooperation and sharing of regulatory practices in three key areas:

i. Planning, reliability and cybersecurity of the electricity system;

ii. Regulation of wholesale energy markets, including the role of energy storage systems and distributed energy resources in competitive energy markets; and

iii. Cooperation in multilateral forums such as the Asia Pacific Energy Regulators Forum.

While in the US, EMA and the United States Department of Energy held the 2nd Bilateral Policy Consultation. Both sides exchanged views on natural gas and LNG developments, clean energy technologies, and multilateral cooperation at international and regional meetings.

EMA also hosted the 2nd Singapore-Japan Energy Dialogue with Japan's Ministry of Economy, Trade and Industry and the Ministry of Foreign Affairs in July 2018 in Singapore. This dialogue focused on key themes such as market liberalisation, natural gas and LNG, and multilateral cooperation.

FOSTERING A HIGH PERFORMANCE ORGANISATION

FOSTERING A HIGH PERFORMANCE ORGANISATION

Building staff competencies for performance remains a high strategic priority at EMA. The capabilities that are needed most for the power sector have evolved. With this, there is a need to upgrade our officers' competencies and enhance their career aspects.

In line with the EMA Competency Framework, the Specialist Career Track was launched in April 2019. This aims to further develop and recognise our officers in specialist jobs. Specialists will need to possess deep expertise, skill sets and experience in a discipline. They should be the go-to person in the organisation for issues specific to EMA.

PRO-ENTERPRISE AND WHOLE-OF-GOVERNMENT EFFORTS

EMA continues to review, streamline and enhance our rules and regulations. This is to lower compliance costs and remove unnecessary red tape for businesses. Some recent initiatives that EMA worked on to support local enterprises include:

- Shorter development time for future substation projects
  We collaborated with SP Group and agencies such as LTA, PUB and the Urban Redevelopment Authority to review and streamline the processes and regulations involved in providing a 66 kV power substation for businesses. The outcome was a reduction of nine months in development time for future substation projects.

- Reduced compliance costs for Non-Exporting Embedded Intermittent Generation Facilities (NEIGFs)
  Together with the Energy Market Company (EMC), we looked at lowering costs for market participants in this group. This is because they do not require access to information in the National Electricity Market of Singapore (NEMS) system. Since November 2018, they no longer have to pay the Power System Operation annual fixed fee of $3,500 and EMC's annual fixed fee of $10,000. The fees will apply only when a NEIGF requests for access to the NEMS system for information. The initiative will reduce compliance costs for these market participants by $13,500 annually.

- Alternate career pathways
  In December 2018, EMA implemented a scheme to help individuals with relevant work experience and competency, but who lack formal academic qualifications. The scheme will help them to apply for the electrical worker and cable detection worker licences. This is in line with the Government's objective to provide avenues for career progression beyond formal academic qualifications.

CORPORATE SOCIAL RESPONSIBILITY EFFORTS

EMA celebrated the Lunar New Year with our adopted charity Caregiving Welfare Association (CWA)'s elderly charges and caregivers. Our colleagues also raised over $21,000 for CWA at our Dinner & Dance in March 2019. This will help fund therapy sessions, health talks and exercise equipment for the elderly and their caregivers.

FINANCIAL HIGHLIGHTS

FOR FY2018/19

FINANCIAL HIGHLIGHTS FOR FY2018/19

For the year ended 31 March 2019, the Authority achieved a net surplus of $7.397 million.

FINANCIAL RESULTS

	FY2018/19 $ Million	FY2017/18 $ Million
Operating revenue	71.073	65.524
Operating expenses	(74.625)	(68.636)
Operating deficit before grant	(3.552)	(3.112)
Government grant	4.749	1.237
Non-operating revenue	7.717	4.441
Surplus before contribution to Government Consolidated Fund ("GCF")	8.914	2.566
Contribution to GCF	(1.517)	(0.438)
Surplus for the year	7.397	2.128

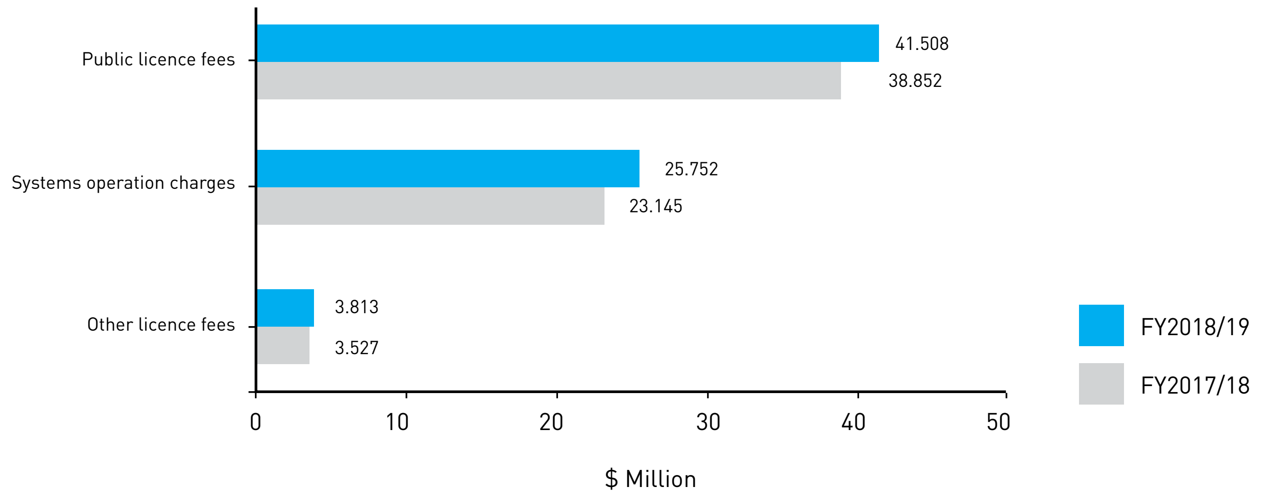
CAPITAL EXPENDITURE

Capital expenditure incurred for the Authority was $3.267 million. This included $2.353 million for IT system developments and $0.914 million for other purchases such as office equipment and replacement of furniture & fittings.

OPERATING REVENUE

Operating revenue for the Authority was $71.073 million for FY2018/19, with breakdown in the graph below.

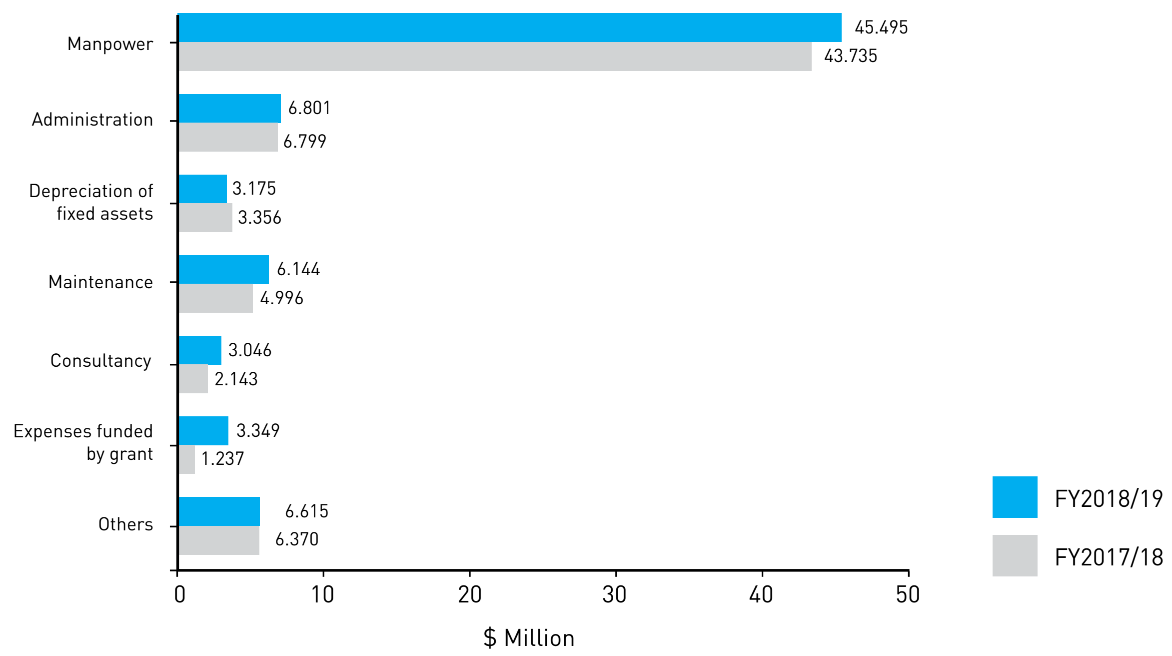
OPERATING REVENUE CATEGORY



OPERATING EXPENSES

Operating expenses for the Authority totalled $74.625 million for the year. The breakdown is shown below.

OPERATING EXPENSES CATEGORY



ANNUAL FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2019

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 Public Sector (Governance) Act 2018, Act 5 of 2018 (the "Public Sector (Governance) Act"), 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 2019 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 statement of comprehensive income for the financial year ended 31 March 2019;
- the balance sheet as at 31 March 2019;
- the statement of changes in equity for the financial year then ended;
- the statement of cash flows for the financial 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 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 Public Sector (Governance) Act, 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 constitutional 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 Public Sector (Governance) Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority; and

(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 Public Sector (Governance) Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority. This responsibility includes monitoring related compliance requirements relevant to the Authority, and implementing internal controls as management determines are necessary to enable compliance with the requirements.

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 Public Sector (Governance) Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority.

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 Authority'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, 27 June 2019

STATEMENT OF COMPREHENSIVE INCOME
For the financial year ended 31 March 2019

	Notes	**2018/19 $'000**	2017/18 $'000
Operating revenue	3	**71,073**	65,524
Operating expenses	3	**(74,625)**	(68,636)
Operating deficit		**(3,552)**	(3,112)
Government grant	3	**4,749**	1,237
Operating surplus / (deficit) after grant		**1,197**	(1,875)
Non-operating revenue	4	**7,717**	4,441
Surplus before contribution to Government Consolidated Fund ("GCF")		**8,914**	2,566
Contribution to GCF	5	**(1,517)**	(438)
Surplus for the year and total comprehensive income		**7,397**	2,128

The financial statements as set out on pages 4 to 33 have been authorised for issue by the Authority.

NG HOW YUE
CHAIRMAN

NGIAM SHIH CHUN
CHIEF EXECUTIVE

26 June 2019

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

BALANCE SHEET
As at 31 March 2019

	Notes	2018/19 $'000	2017/18 $'000
EQUITY			
Capital account	11	**86,674**	86,674
Specific funds	10	**-**	19,886
Accumulated surplus		**103,796**	78,641
Total equity		**190,470**	185,201
Represented by:			
ASSETS			
Non-current assets			
Fixed assets	6	**8,102**	8,010
Other receivables	7	**861**	10,634
Loan receivables	13	**430,707**	402,985
Interest receivables	14	**13,889**	7,830
		453,559	429,459
Current assets			
Other receivables and prepayments	7	**7,579**	5,303
Cash and cash equivalents	8	**145,599**	136,973
Loan receivables	13	**-**	25,176
Interest receivables	14	**142**	175
		153,320	167,627
Total assets		**606,879**	597,086
LIABILITIES			
Current liabilities			
Other payables and provisions	9	**12,740**	16,987
Provision for contribution to Government Consolidated Fund ("GCF")		**1,517**	438
Loan payables	13	**-**	25,176
Interest payables	14	**142**	175
		14,399	42,776
Non-current liabilities			
Loan payables	13	**390,707**	362,985
Interest payables	14	**10,903**	5,724
Provision for office reinstatement		**400**	400
		402,010	369,109
Total liabilities		**416,409**	411,885
Net assets		**190,470**	185,201

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

STATEMENT OF CHANGES IN EQUITY
For the financial year ended 31 March 2019

	Capital account (Note 11) $'000	Specific funds (Note 10) $'000	Accumulated surplus $'000	Total equity $'000
At 1 April 2017	86,674	19,886	78,845	185,405
Total comprehensive income for the year	-	-	2,128	2,128
Dividends paid to the Government (Note 12)	-	-	(2,332)	(2,332)
At 31 March 2018 and at 1 April 2018	86,674	19,886	78,641	185,201
Total comprehensive income for the year	-	-	7,397	7,397
Dividends paid to the Government (Note 12)	-	-	(2,128)	(2,128)
Transfer during the year	-	(19,886)	19,886	-
At 31 March 2019	**86,674**	**-**	**103,796**	**190,470**

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

STATEMENT OF CASH FLOWS
For the financial year ended 31 March 2019

	Notes	2018/19 $'000	2017/18 $'000
Cash flows from operating activities			
Surplus before contribution to Government Consolidated Fund ("GCF")		**8,914**	2,566
Adjustments for:			
- Depreciation of fixed assets	6	**3,175**	3,356
- (Gain) / loss on disposal of fixed assets	4	**(14)**	60
- Grants from the Government	3	**(4,749)**	(1,237)
- Interest income	4	**(3,654)**	(2,838)
		3,672	1,907
Changes in working capital:			
- Other receivables and prepayments		**8,329**	(1,608)
- Other payables		**(1,777)**	1,395
Cash generated from operations		**10,224**	1,694
Payment to GCF		**(438)**	(480)
Net cash provided by operating activities		**9,786**	1,214
Cash flows from investing activities			
Purchase of fixed assets		**(5,737)**	(1,214)
Purchase of fixed assets (funded by grant)		**-**	(225)
Proceeds from disposal of fixed assets		**14**	-
Interest income received from funds managed under Centralised Liquidity Management		**1,942**	2,305
Net cash (used in)/provided by investing activities		**(3,781)**	866
Cash flows from financing activities			
Payment of dividends to the Government		**(2,128)**	(2,332)
Grants received from the Government		**4,749**	1,237
Net cash provided by/(used in) financing activities		**2,621**	(1,095)
Net increase in cash and cash equivalents		**8,626**	985
Cash and cash equivalents at beginning of year		**136,973**	135,988
Cash and cash equivalents at end of year	8	**145,599**	136,973

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

NOTES TO THE FINANCIAL STATEMENTS
For the financial year ended 31 March 2019

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 provisions of the Public Sector (Governance) Act, the Act and Statutory Board Financial Reporting Standards ("SB-FRS") including related interpretations ("INT SB-FRS") and Guidance Notes as promulgated by the Accountant-General.

The financial statements have been prepared on the historical cost basis 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. There are no areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements.

Interpretations and amendments to published standards effective in 2018

On 1 April 2018, 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 except for the following:

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

Interpretations and amendments to published standards effective in 2018 (continued)

(a) *Adoption of SB-FRS 115 Revenue from Contracts with Customers*

The Authority has adopted the new standard using the modified retrospective approach set out in SB-FRS 115. Comparative information for 2018 are not restated.

The accounting policies for revenue from contracts with customers under SB-FRS 115 are disclosed in Note 2.2.

As majority of The Authority's revenue is derived from arrangement in which the transfer of risk and reward coincides with the fulfilment of performance obligations and transfer of control as defined by SB-FRS 115, there are no material changes in respect of the timing and amount of revenue currently recognised in the Authority.

(b) *Adoption of SB-FRS 109 Financial Instruments*

The Authority has adopted the new standard retrospectively from 1 April 2018, in line with the transition provision permitted under the standards. Comparative information for 2018 are not restated.

The accounting policies for financial instruments under SB-FRS 109 are disclosed in Note 2.7.

The effects on adoption of SB-FRS 109 are as follows:

<u>Impairment of financial assets</u>

The Authority has the following financial assets subject to the expected credit loss impairment model under SB-FRS 109:

- Cash and bank deposits;
- Trade and other receivables; and

The impairment methodology for each of these classes of financial assets under SB-FRS 109 are disclosed in Note 2.7.

Based on the management assessment, the expected credit loss is assessed as immaterial.

2. Significant accounting policies (continued)

2.2 Revenue recognition

Revenue is recognised when the Authority satisfies their performance obligation by transferring a promised good or service to a customer. Performance obligation can either be satisfied at a point in time, or over time, depending on the nature of the good or service to be transferred. Revenue of the Authority is recognised as follows:

(a) Licence fees from public licensees are recognised over the year;
(b) Licence fees from inspectorate licensees are recognised as income upon issuance of licence (i.e. at a point in time);
(c) System operation charges are recognised as income over the year;
(d) Penalty revenue is recognised at the point of settlement (i.e. at a point in time);
(e) Interest income is recognised on an accrual basis; and
(f) Sponsorship 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.

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 to 5 years
Microcomputer and software	3 years
Vehicles	10 years
Office setup/furniture and fittings	3 to 7 years
Office/work equipment	3 years

Project-in-progress relate to capital expenditure for projects which are under construction as at financial year-end. Depreciation will commence upon the completion of the project with the asset used in operation.

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.

2. Significant accounting policies (continued)

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 Financial assets

(a) The accounting for financial assets before <u>1 April 2018</u> under SB-FRS 39 are as follows:

Loans and receivables
Cash and cash equivalents
Other receivables (excluding prepayments)
Loan receivables
Interest receivables

Cash and cash equivalents, other receivables (excluding prepayments), loan receivables and interest receivables are initially recognised at fair value and subsequently carried at amortised cost using effective interest method, less accumulated impairment losses.

2. Significant accounting policies (continued)

2.7 Financial assets (continued)

(a) The accounting for financial assets before 1 April 2018 under SB-FRS 39 are as follows: (continued)

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.

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.

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

(b) The accounting for financial assets from 1 April 2018 under SB-FRS 109 are as follows:

The Authority classifies its financial assets as held at amortised cost.

The classification of debt instruments depends on the Authority's business model for managing the financial assets as well as the contractual terms of the cash flows of the financial assets.

The Authority reclassifies debt instruments when and only when its business model for managing those assets changes.

(i) At initial recognition

At initial recognition, the Authority measures a financial asset at its fair value plus transaction costs that are directly attributable to the acquisition of the financial assets.

2. Significant accounting policies (continued)

2.7 Financial assets (continued)

(b) The accounting for financial assets from 1 April 2018 under SB-FRS 109 are as follows: (continued)

(ii) *At subsequent measurement*

Debt instruments of the Authority mainly comprise of cash and cash equivalents, other receivables (excluding prepayments), interest receivables and loan receivables.

Debt instruments that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. A gain or loss on a debt instrument that is subsequently measured at amortised cost and is not part of a hedging relationship is recognised in profit or loss when the asset is derecognised or impaired. Interest income from these financial assets are recognised using the effective interest rate method.

The Authority assesses on forward looking basis the expected credit losses associated with its debt instruments carried at amortised cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

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.

2.11 Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and at banks and cash with Accountant-General's Department ("AGD"), 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. Significant accounting policies (continued)

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.

2.13 Capital

Ordinary shares issued are classified in capital account.

2.14 Dividends

Dividends are recognised when the dividends are approved for payment to the Government.

2.15 Government grants

Grants from the Government are recognised as a receivable when there is reasonable assurance that the grant will be received and the Authority will comply with all the attached conditions.

Government grants receivable are recognised as income over the periods necessary to match them with the related costs which they are intended to compensate, on a systematic basis. Government grants relating to expenses are shown separately as other income.

Government grants relating to assets are deducted against the carrying amount of the assets.

3. Surplus before contribution to Government Consolidated Fund ("GCF")

	Notes	2018/19 $'000	2017/18 $'000
Operating revenue			
Regulatory fees:			
- Public licence fees	3a	**41,508**	38,852
- Other licence fees	3a	**3,813**	3,527
Systems operation charges	3a	**25,752**	23,145
		71,073	65,524
Operating expenses			
Manpower	3b	**(45,495)**	(43,735)
Administration	3c	**(6,801)**	(6,799)
Depreciation of fixed assets	6	**(3,175)**	(3,356)
Maintenance		**(6,144)**	(4,996)
Consultancy		**(3,046)**	(2,143)
Expenses funded by grant		**(3,349)**	(1,237)
Others		**(6,615)**	(6,370)
		(74,625)	(68,636)
Operating deficit		**(3,552)**	(3,112)
Government grant		**4,749**	1,237
Deficit after government grant		**1,197**	(1,875)
Non-operating revenue	4	**7,717**	4,441
Surplus before contribution to GCF		**8,914**	2,566

(a) Disaggregation of operating revenue

	At a point in time $'000	Over time $'000	Total $'000
2018			
Public licence fees	-	41,508	41,508
Other licence fees	3,813	-	3,813
System operation charges	-	25,752	25,752
	3,813	67,260	71,073

3. Surplus before contribution to Government Consolidated Fund ("GCF") (continued)

(a) Disaggregation of operating revenue (continued)

	At a point in time $'000	Over time $'000	Total $'000
2017			
Public licence fees	-	38,852	38,852
Other licence fees	3,527	-	3,527
System operation charges	-	23,145	23,145
	3,527	61,997	65,524

The Authority has initially applied SB-FRS 115 using the modified retrospective method. Under this method, the comparative information is not restated.

(b) Manpower expenses include the following:

	2018/19 $'000	2017/18 $'000
Salaries and salary related expenses	**38,562**	36,772
CPF contributions	**4,303**	4,196

(c) Administration expenses include the following:

	2018/19 $'000	2017/18 $'000
Operating lease expenses	**3,753**	3,672

4. Non-operating revenue

	Note	2018/19 $'000	2017/18 $'000
Interest earned from deposits with AGD# and loan		**3,654**	2,838
Sponsorship for event		**862**	822
Gain/(loss) on disposal of fixed assets		**14**	(60)
Penalty charges/fines		**3,024**	684
Others		**163**	157
		7,717	4,441

Deposits managed by Accountant-General's Department ("AGD") under Centralised Liquidity Management

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% (FY2017/18: 17%) of the surplus of the Authority for the financial year.

6. Fixed assets

	Computer systems $'000	Micro-computer and software $'000	Vehicles $'000	Office setup/ furniture and fittings $'000	Office/work equipment $'000	Project-in-progress $'000	Total $'000
Cost							
At 1 April 2017	26,007	1,183	83	5,273	401	1,024	33,971
Additions	935	91	-	16	62	2,547	3,651
Disposals	(4,248)	(82)	-	(62)	(78)	-	(4,470)
Reclassifications	1,241	-	-	-	-	(1,241)	-
At 31 March 2018 and at 1 April 2018	23,935	1,192	83	5,227	385	2,330	33,152
Additions	463	16	140	720	54	1,874	3,267
Disposals	(780)	(199)	(83)	(30)	(18)	-	(1,110)
Reclassifications	2,968	-	-	-	-	(2,968)	-
At 31 March 2019	26,586	1,009	140	5,917	421	1,236	35,309
Accumulated depreciation							
At 1 April 2017	19,749	1,127	69	4,912	339	-	26,196
Depreciation charge for the financial year	3,093	75	14	139	35	-	3,356
Disposals	(4,188)	(82)	-	(62)	(78)	-	(4,410)
At 31 March 2018 and at 1 April 2018	18,654	1,120	83	4,989	296	-	25,142
Depreciation charge for the financial year	2,903	53	11	148	60	-	3,175
Disposals	(780)	(199)	(83)	(30)	(18)	-	(1,110)
At 31 March 2019	20,777	974	11	5,107	338	-	27,207
Net book value							
At 31 March 2018	5,281	72	-	238	89	2,330	8,010
At 31 March 2019	**5,809**	**35**	**129**	**810**	**83**	**1,236**	**8,102**

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7. Other receivables and prepayments

	Note	2018/19 $'000	2017/18 $'000
Non-current assets:			
Deposits		**861**	1,432
Other receivables	7a	**-**	9,202
Total other receivables		**861**	10,634
Current assets:			
Accrued interest income		**1,792**	960
Other receivables		**4,830**	3,602
Prepayments		**957**	741
Total other receivables and prepayments		**7,579**	5,303

(a) Other receivables in prior financial year relate to expenses incurred on a development project. This amount was fully reimbursed by the Government and received in FY2018/19.

8. Cash and cash equivalents

	Note	2018/19 $'000	2017/18 $'000
Cash with AGD	8a	**145,599**	136,972
Cash and bank balances		**-**	1
Cash and cash equivalents per balance sheet		**145,599**	136,973

(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 1.44% to 1.98% per annum (FY 2017/18: 1.21% to 1.28% per annum).

9. Other payables and provisions

	2018/19 $'000	2017/18 $'000
Other creditors and accruals	**7,807**	9,986
Accrued capital expenditure	**510**	2,980
Accrual for employee expenses	**2,537**	2,204
Provision for unutilised leave	**1,886**	1,817
	12,740	16,987

10. Specific funds

	ETF $'000
2018/19	
As at 1 April 2018 and 31 March 2019	-
2017/18	
As at 1 April 2017 and 31 March 2018	19,886

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. ETF was closed on 16 July 2018 and the remaining funds were transferred back to accumulated surplus.

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. Dividends

	2018/19 $'000	2017/18 $'000
Ordinary dividends		
Dividends paid in respect of the financial year	2,128	2,332

13. Loan receivables and loan payables

As at 31 March 2019, the Authority has three outstanding back-to-back loan agreements signed between April 2014 to April 2016 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.

13. Loan receivables and loan payables (continued)

The Authority separately granted a direct loan facility of $40 million to SLNG Corp in February 2013. This loan, fully drawn as at 31 March 2019, is also unsecured and carries a fixed interest rate that approximated prevailing market rates at the time of issue.

As at 31 March 2019, the total loan facilities to SLNG Corp is $746m (2017/18: $746) million.

On 21 June 2016, 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 2019, net loan amount drawn down was $203 million after amortisation 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 $203 million (after amortisation 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 2019. 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 during the year.

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.

(a) *Loan receivable from SLNG Corp*

	2018/19 $'000	2017/18 $'000
As at 1 April	**224,620**	211,190
Loan drawdown during the year	**3,070**	13,430
As at 31 March	**227,690**	224,620
Non-current	**227,690**	224,620

13. Loan receivables and loan payables (continued)

(b) Loan receivable from SPS

	2018/19	2017/18
	$'000	$'000
As at 1 April	**203,541**	162,271
Loan drawdown during the year	**15,559**	41,270
Loan repayment during the year	**(16,083)**	-
As at 31 March	**203,017**	203,541
Current	**-**	25,176
Non-current	**203,017**	178,365

(c) Total loan receivable

	2018/19	2017/18
	$'000	$'000
Current	**-**	25,176
Non-current	**430,707**	402,985
Total loan receivables	**430,707**	428,161

(d) Loan payable to the Government

	2018/19	2017/18
	$'000	$'000
As at 1 April	**184,620**	171,190
Loan drawdown during the year	**3,070**	13,430
As at 31 March	**187,690**	184,620
Non-current	**187,690**	184,620

(e) Loan payable to the Bank

	2018/19	2017/18
	$'000	$'000
As at 1 April	**203,541**	162,271
Loan drawdown during the year	**15,559**	41,270
Loan repayment during the year	**(16,083)**	
As at 31 March	**203,017**	203,541
Current	**-**	25,176
Non-current	**203,017**	178,365

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13. Loan receivables and loan payables (continued)

(f) Total loan payables

	2018/19	2017/18
	$'000	$'000
Current	**-**	25,176
Non-current	**390,707**	362,985
Total loan payables	**390,707**	388,161

14. Interest receivables and interest payables

(a) Interest receivable from SLNG Corp

	2018/19	2017/18
	$'000	$'000
As at 1 April	**7,830**	2,147
Interest charged during the year	**6,059**	5,683
As at 31 March	**13,889**	7,830
Non-current	**13,889**	7,830

(b) Interest receivable from SPS

	2018/19	2017/18
	$'000	$'000
As at 1 April	**175**	88
Interest charged during the year	**4,054**	2,361
Interest repayment during the year	**(4,087)**	(2,274)
As at 31 March	**142**	175
Current	**142**	175

(c) Total interest receivables

	2018/19	2017/18
	$'000	$'000
Current	**142**	175
Non-current	**13,889**	7,830
Total interest receivables	**14,031**	8,005

14. Interest receivables and interest payables (continued)

(d) Interest payable to the Government

	2018/19	2017/18
	$'000	$'000
As at 1 April	**5,724**	921
Interest charged during the year	**5,179**	4,803
As at 31 March	**10,903**	5,724
Non-current	**10,903**	5,724

(e) Interest payable to the Bank

	2018/19	2017/18
	$'000	$'000
As at 1 April	**175**	88
Interest charged during the year	**4,054**	2,361
Interest repayment during the year	**(4,087)**	(2,274)
As at 31 March	**142**	175
Current	**142**	175

(f) Total interest payables

	2018/19	2017/18
	$'000	$'000
Current	**142**	175
Non-current	**10,903**	5,724
Total interest payables	**11,045**	5,899

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15. Outstanding capital and loan commitments

The Authority has procurement commitments for fixed assets incidental to its ordinary course of business. The outstanding capital commitments as at 31 March 2019 for the Authority amounted to $2.0 million (FY2017/18: $3.3 million).

The Authority has entered into loan agreements with SLNG Corp. The outstanding undrawn loan commitment amounted to $518.3 million (FY2017/18: $521.4 million) which pertains to back-to-back agreements which the Authority signed with the Government of the Republic of Singapore ("the Government").

16. Operating lease commitments

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

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

	2018/19	2017/18
	$'000	$'000
Authority as Lessee		
Within 1 year	**3,913**	3,886
After 1 year but within 5 years	**5,244**	4,073
Later than 5 years	**1,001**	-
	10,158	7,959
Authority as Lessor		
Within 1 year	**79**	100
After 1 year but within 5 years	**267**	-
Later than 5 years	**61**	-
	407	100

17. 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

At the end of the reporting period, the interest rate profile of the interest-earning financial instruments was:

	2018/19 $'000	2017/18 $'000
Variable rate instruments		
Cash with AGD	**145,599**	136,972

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).

	2018/19 $'000	2017/18 $'000
Loan payable	**(390,707)**	(388,161)
Loan receivable	**430,707**	428,161

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 0.52% (FY2017/18: 0.13%) 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 $0.8 million (FY2017/18: $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.

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17. Financial risk management objectives and policies (continued)

(a) Interest rate risk (continued)

Sensitivity analysis for interest rate risk (continued)

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

The Authority assess that there is no interest rate risk for the Authority's direct loan receivable from SLNG Corp, as it carries a fixed interest rate.

(b) Credit risk

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Authority. The Authority's major classes of financial assets are cash and cash equivalents, other receivables, interest receivables and loan receivables.

For other receivables, interest receivables and loan receivables, the borrowers. SLNG Corp and SPS, are established corporations with good financial standing. Management believes that these receivables are exposed to immaterial credit risks.

For cash and cash equivalents, these are placed with AGD. Management believes that minimal credit risks exist with respect to the funds placed with AGD.

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

(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.

17. Financial risk management objectives and policies (continued)

(c) Liquidity risk (continued)

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:

	Less than 1 year $'000	Between 1 and 5 years $'000	Over 5 years $'000
2018/19			
Interest payable to bank	(142)	-	-
Loan payable to bank#	(5,044)	(214,259)	(25)
Interest payable to the Government	-	-	(10,903)
Loan payable to the Government	-	-	(211,807)
Other payables*	(10,841)	-	-
Total net undiscounted financial liabilities	**(16,027)**	**(214,259)**	**(222,735)**
2017/18			
Interest payable to bank	(175)	-	-
Loan payable to bank#	(28,426)	(190,350)	-
Interest payable to the Government	-	-	(5,724)
Loan payable to the Government	-	-	(213,512)
Other payables*	(15,170)	-	-
Total net undiscounted financial liabilities	(43,771)	(190,350)	(219,236)

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, current loan 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 2.72% (FY2017/18: 3.01%) per annum which is determined based on a 5 year swap offer rates respectively at the end of the reporting period plus an adequate credit spread.

17. Financial risk management objectives and policies (continued)

(d) Fair value measurements (continued)

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)

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

	Level 2 $'000
2018/19	
Fixed rate loan due from SLNG Corp, including accrued interests	238,153
Fixed rate loan due to Government, including accrued interests	(196,634)
2017/18	
Fixed rate loan due from SLNG Corp, including accrued interests	224,180
Fixed rate loan due to Government, including accrued interests	(184,424)

(e) Financial instruments by category

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

	2018/19 $'000	2017/18 $'000
Financial assets		
Other receivables#	**7,483**	15,196
Cash and cash equivalents	**145,599**	136,973
Interest receivables	**14,031**	8,005
Loan receivables	**430,707**	428,161
Financial liabilities at amortised cost		
Other payables*	**10,854**	15,170
Interest payables	**11,045**	5,899
Loan payables	**390,707**	388,161

Excludes prepayments
* Excludes provision

18. Related party transactions

Some of the Authority's transactions and arrangements are with related parties and the effect of these on the basis determined between the parties is reflected in these financial statements. The balances are unsecured, interest-free and repayable on demand unless otherwise stated.

The Authority had the following transactions with its related parties during the year:

	2018/19	2017/18
	$'000	$'000
Ministry of Trade and Industry		
Operating Grant	**4,749**	1,237

Key management personnel compensation

	2018/19	2017/18
	$'000	$'000
Authority members' allowance	**135**	152
Salaries, bonuses and allowances	**2,467**	3,023
CPF contributions	**73**	91
	2,675	3,266

19. New or revised accounting standards and interpretations

Below are the mandatory standards, amendments and interpretations to existing standards that have been published, and are relevant for the Authority's accounting periods beginning on or after 1 April 2019 and which the Authority has not early adopted:

<u>SB-FRS 116 Leases (effective for annual periods beginning on or after 1 January 2019)</u>

SB-FRS 116 requires lessees to recognise most leases on balance sheets. The standard includes two recognition exemptions for lessees – leases of 'low value' assets and short-term leases. At commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e. the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e. the right-of-use asset). Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset.

The Authority plans to adopt SB-FRS 116 retrospectively with the cumulative effect of initially applying the standard as an adjustment to the opening retained earnings at the date of initial application, 1 April 2019.

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For the financial year ended 31 March 2019

19. New or revised accounting standards and interpretations (continued)

<u>SB-FRS 116 Leases (effective for annual periods beginning on or after 1 January 2019)</u> (continued)

On the adoption of SB-FRS 116, the Authority expects to choose, on a lease-by-lease basis, to measure the right-of-use asset at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position immediately before 1 April 2019.

In addition, the Authority plans to elect the following practical expedients:

- not to reassess whether a contract is, or contains a lease at the date of initial application and to apply SB-FRS 116 to all contracts that were previously identified as leases
- to apply a single discount rate to a portfolio of leases with reasonably similar characteristics

Net Investment in Subleases

The Authority has entered into agreements in which an underlying asset is re-leased by the Authority ('Intermediate lessor') to third parties, and the lease ('head lease') between the head lessor and Authority remains in effect.

In classifying a sublease, an intermediate lessor shall determine if the sublease is a finance lease or an operating lease.

Based on preliminary impact assessment, the Authority has determined that all the subleases as of 1 April 2019 will qualify as finance lease and the Authority will therefore derecognise the right-of-use asset on the head lease and recognise net investment in sublease as of initial date of application (i.e. 1 April 2019) for the lease premises which have been sub-let to third parties. The Authority will continue to account for the original lease liability in accordance with the lessee accounting model.

Quantitative impact on the date of initial application

The Authority has performed a preliminary impact assessment based on currently available information, and the assessment may be subject to changes arising from ongoing analysis until the Authority adopts SB-FRS 116 in FY2019/20.

On the adoption of SB-FRS 116, the Authority expects to recognise right-of-use assets of $9.7 million, net investment in sublease of $0.4 million and lease liabilities of $9.5 million for its leases previously classified as operating leases as of 1 April 2019. There will be no adjustment to the opening retained earnings at the date of initial application required.

20. Authorisation of financial statements

The financial statements of the Authority for the financial year ended 31 March 2019 were authorised for issue in accordance with a resolution of the Authority on 26 June 2019.

ENERGY MARKET AUTHORITY

Smart Energy, Sustainable Future

991G Alexandra Road
#01-29
Singapore 119975

T +65 6835 8000
F +65 6835 8020
W www.ema.gov.sg
TW www.twitter.com/EMA_sg
FB www.facebook.com/EnergyMarketAuthority