



SMART ENERGY SUSTAINABLE FUTURE



ENERGY MARKET AUTHORITY ANNUAL REPORT 2020/21



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 Vision and Mission 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 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 Competitive Energy Market

We promote effective competition with a sound regulatory framework that encourages investment and prevents the exercise of market power.

/ 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.

Contents

4 List of Authority Members

Senior Management & Organisation Structure 5

6 Singapore's Energy Story: Towards a More Sustainable Future

Developing Four Switches for Greater Sustainability 8

14 Promoting an Energy Efficient Singapore

Engaging International & Local Stakeholders 18

22 Nurturing a Future-Ready Workforce

Financial Highlights 26

28 Annual Financial Statements

List of Authority Members

Chairman
Mr Richard Lim Cherng Yih
Chairman
ST Logistics

Members
Mr Ngiam Shih Chun
Chief Executive
Energy Market Authority

Professor Chua Kee Chaing
Deputy President (Academic) and Provost
Singapore Institute of Technology

Ms Paula Conboy
Senior Counsel
Sussex Strategy Group
Board Member
PJM Interconnection

Mr Kon Yin Tong
Managing Partner
Foo Kon Tan LLP

Professor Liew Ah Choy
Chief Executive Officer
EquiVolt Pte Ltd
Emeritus Professor, Department of Electrical & Computer Engineering
National University of Singapore

In Appreciation

We would like to express our appreciation to our former Authority members –
Professor Phang Sock Yong, Mr Russell Tham Min Yew and Mr Andre Yeap Poh Leong
– for their guidance and contributions to EMA.

Senior Management

Mr Ngiam Shih Chun
Chief Executive

Mr Kng Meng Hwee
Deputy Chief Executive
Industry Regulation

Mr Ralph Foong
Deputy Chief Executive
Energy Planning & Development
Corporate Services Group

Mr Soh Yap Choon
Deputy Chief Executive
Power System Operation

Mr Soh Sai Bor
Assistant Chief Executive
Economic Regulation

Organisation Structure

Chief Executive's Office

- Digital Transformation Office
- Human Resource & Organisational Development Department

Corporate Services Group

- Corporate Communications Department
- Finance Department
- Information Technology Department
- Legal & Administration Department

Economic Regulation Division

- Economic Regulation & Licensing Department
- Market Development & Surveillance Department

Energy Planning & Development Division

- Energy Connections Office
- Energy Technology & Data Department
- External Relations Department
- Industry Development Department
- National Energy Transformation Office
- Policy & Planning Department

Industry Regulation Division

- Electricity System Department
- Gas System Department
- Generation Development Department
- Inspectorate Department

Power System Operation Division

- Energy Management Systems Department
- Gas System Supervision Department
- System Control Department
- System Stability & Planning Department

Singapore's Energy Story: Towards a More Sustainable Future

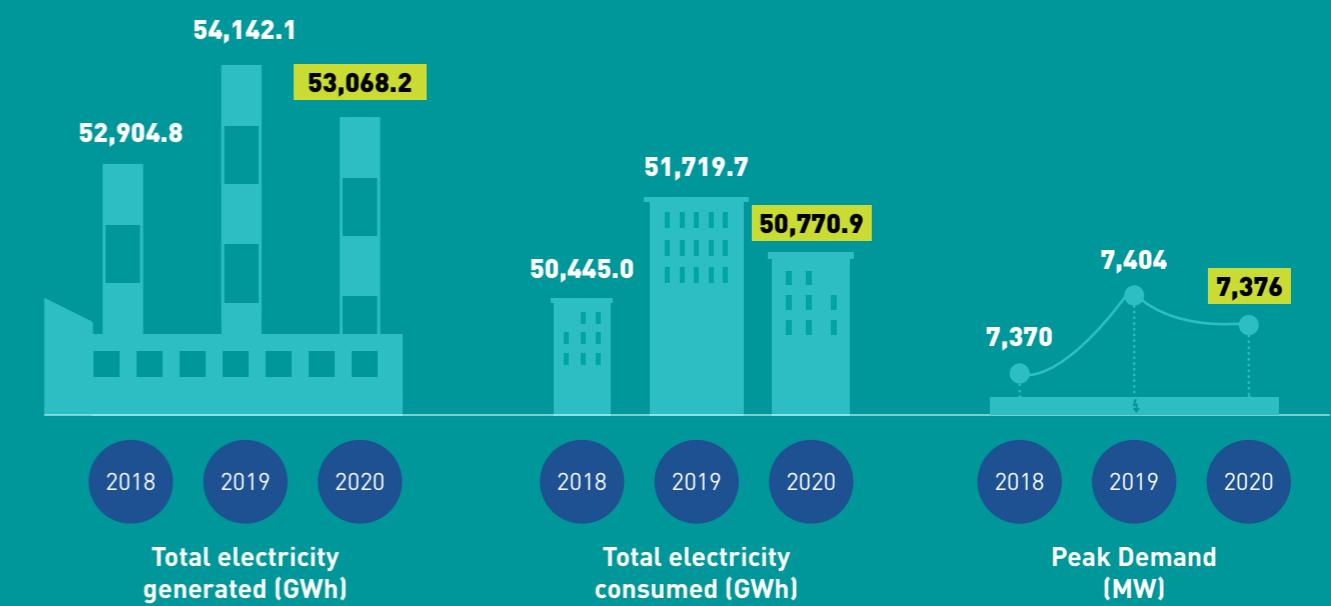
In spite of the challenges brought about by the COVID-19 pandemic, the Energy Market Authority (EMA) forged ahead in ensuring a sustainable, reliable and affordable energy future for Singapore. As climate change remains a global and pressing threat, there is a need to balance energy security with affordability and sustainability, also known as the Energy Trilemma. EMA will continue to tackle these challenges in the journey towards a cleaner and greener energy landscape.

At the Singapore International Energy Week (SIEW) 2020, then-Minister for Trade and Industry Chan Chun Sing described Singapore's aspiration to be a "Bright Green Spark". In this new chapter of Singapore's Energy Story, EMA plays a key role in supporting Singapore to overcome its energy challenges and green its energy sources.

This involves harnessing the Four Switches of Singapore's Energy Story: using natural gas as a key fuel source while scaling up renewable energy sources like solar energy, tapping into regional power grids and exploring low-carbon alternatives. As energy demand and consumption grow, it is increasingly important to look at how Singapore can manage and consume energy more efficiently.



Electricity Generation, Consumption and Peak Demand in Singapore



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. The graph is referenced to the latest statistics at the time of preparing this report.

Power System Performance



SAIDI (SYSTEM AVERAGE INTERRUPTION DURATION INDEX)

measures the average interruption time per customer in minutes

On average, each customer experienced an **interruption of 0.17 minutes** in 2020.

SAIFI (SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX)

measures the average number of interruptions per customer

The number of interruptions per customer has continued to **decrease**.

01

Developing Four Switches for Greater Sustainability

Our vision is to empower a future where energy supply continues to be reliable and is produced and consumed efficiently. To achieve this, we depend on Four Switches that will drive the transformation of Singapore's energy supply towards sustainability.

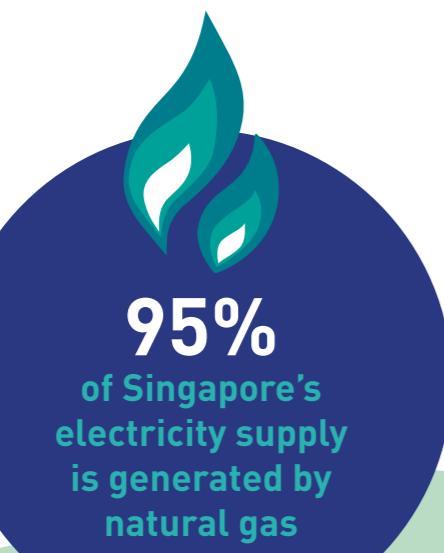


Cleaner Fuel, Greener Future

Currently, around 95% of Singapore's electricity supply is generated by natural gas, which is the cleanest fossil fuel available.

In March 2021, the Energy Market Authority (EMA) appointed two additional Liquefied Natural Gas (LNG) term importers for Singapore — ExxonMobil LNG Asia Pacific and Sembcorp Fuels (Singapore) Pte Ltd. Having more importers enhances market competition and results in more flexible supply options for gas buyers.

Natural gas will continue to be essential in maintaining the reliability of Singapore's energy supply, even as we advance the transition to other forms of clean energy.



Harnessing the Power of the Sun

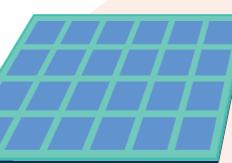
Singapore is now one of the most solar-dense cities in the world. As of end-2020, the total solar capacity installed was 427.6 megawatt-peak (MWp). We intend to deploy 1.5 gigawatt-peak (GWp) of solar capacity by 2025 and at least 2 GWp by 2030. This is enough to meet the annual power needs of around 260,000 and 350,000 households respectively.

The government is also pursuing creative ways to maximise solar energy and make every space count. Besides setting up solar photovoltaic systems on the rooftops of HDB blocks and industrial buildings, possible alternative sites include offshore spaces, reservoirs, walkways and even temporary vacant land. In considering these spaces, we are mindful of competing uses, such as for recreational purposes, as well as the need for biodiversity preservation.

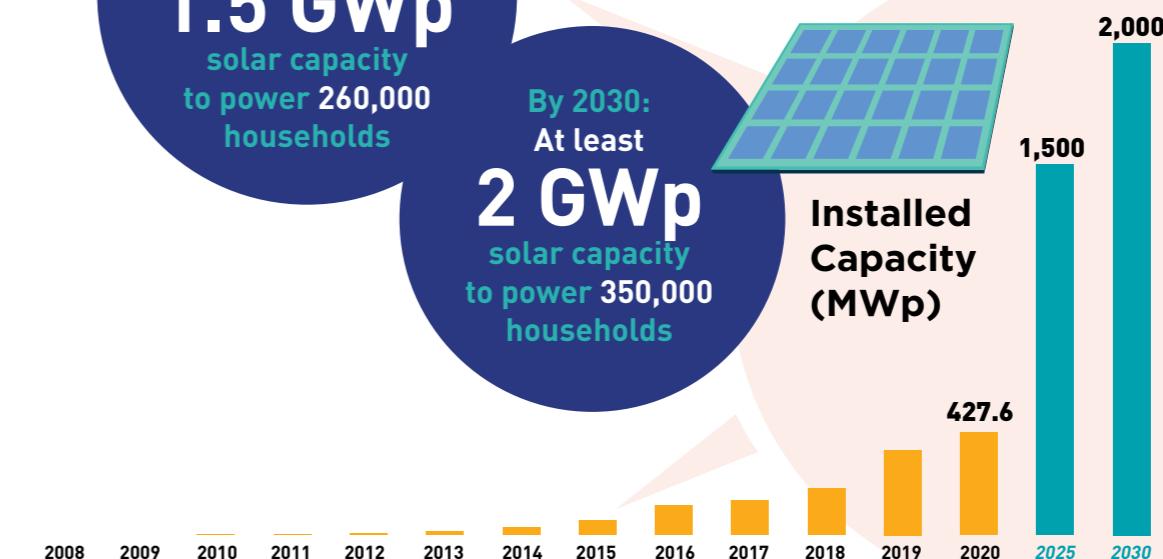
DEPLOYMENT TARGETS

By 2025:
1.5 GWp
solar capacity
to power 260,000
households

By 2030:
At least
2 GWp
solar capacity
to power 350,000
households



**Installed
Capacity
(MWp)**



Leveraging Energy Storage Systems

The harnessing of solar energy is dependent on weather conditions and factors such as space for solar installations. This is where Energy Storage Systems (ESS) can help to address solar intermittency by storing energy for later use and to enhance power grid resilience.

To meet our ESS deployment target of at least 200 megawatts (MW) beyond 2025, EMA has collaborated with various stakeholders to co-create innovative ESS solutions. For example, in partnership with SP Group and local solar company Sunseap, we deployed Singapore's first utility-scale ESS at a substation in October 2020. This utility-scale ESS will provide performance insights of such systems in Singapore's hot and humid environment. It will also assist in the establishment of technical guidelines for those keen on ESS deployments.

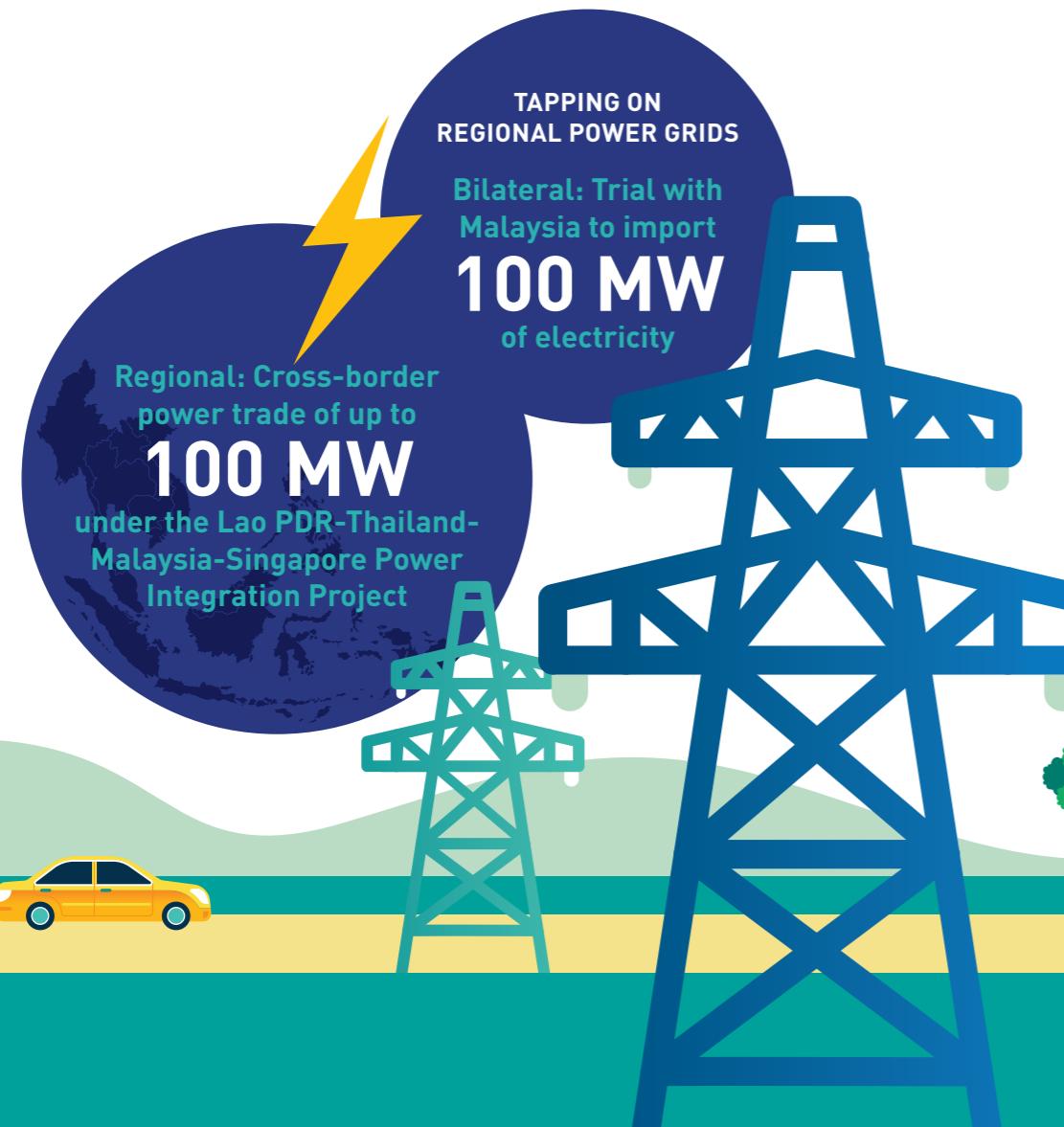
Together with Keppel Offshore & Marine (O&M), EMA awarded a research grant to a consortium led by Envision Digital International Pte Ltd to deploy Singapore's first floating ESS solution on Keppel O&M's Floating Living Lab. This project will explore the first-of-its-kind battery stacking solution in Singapore, which could potentially reduce the deployment footprint by up to 40%.

Building Connections for Greater Sustainability

Singapore is an alternative energy disadvantaged country, which poses a challenge in meeting our climate change objectives. To overcome this, EMA is exploring ways to leverage bilateral and regional cooperation to tap on regional power grids for renewable energy sources. These include a trial to import 100 MW of electricity from Malaysia, with a Request for Proposal announced in March 2021. The trial could help to diversify Singapore's energy supply by facilitating and scaling up imports from the region in the future.

The 38th Association of Southeast Asian Nations (ASEAN) Ministers on Energy Meeting in November 2020 saw the announcement of the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project. The four countries are jointly committing to initiate cross-border power trade of up to 100 MW.

Recognising that electricity imports can significantly decarbonise the power sector to meet Singapore's 2030 climate change goals, EMA formed the Energy Connections Office to oversee electricity imports. This new department will also look at demand-side measures that enable consumers to provide services to the energy market, shave their peak demand and reduce energy consumption.



Going Low-Carbon

EMA continues to work with agencies to study emerging technologies, such as hydrogen and Carbon Capture, Utilisation and Storage. At the Singapore International Energy Week (SIEW) 2020, Minister Chan Chun Sing announced a \$49 million Low-Carbon Energy Research Funding Initiative to support research, development and demonstration projects in low-carbon energy technologies. The first grant call was launched in January 2021, with awards slated to be announced in Q3 2021.

EMA also collaborated with international partners to develop low-carbon supply chains and share information on standards and research. For example,

Singapore has signed Memorandums of Understanding with Australia and Chile to exchange knowledge and experience in low-carbon hydrogen.

Given strong industry interest to explore the use of hydrogen as a decarbonisation solution, the government is working closely with the private sector to facilitate the deployment of low-carbon hydrogen in Singapore. Recent efforts include those led by Keppel DC, Chiyoda and Itochu to develop the supply chain and infrastructure for liquefied hydrogen.



02

Promoting an Energy Efficient Singapore

To manage energy demand, the Energy Market Authority (EMA) will continue to improve energy efficiency in all sectors. While commercial and industrial sectors make up the bulk of demand, we will also empower households to better manage their electricity consumption.





Greater Power Generation Efficiency

EMA launched the Advanced Combined Cycle Gas Turbine incentive scheme and the Energy Efficiency Grant Call for Power Generation Companies (Genco EE Grant Call) to encourage power generation companies (gencos) to improve the efficiency of their power plants.

Under the first Genco EE Grant call, \$37 million was awarded in 2020 to PacificLight Power Pte Ltd, Senoko Energy Pte Ltd, Tuas Power Generation Pte Ltd and YTL PowerSeraya Pte Ltd to adopt energy efficient technologies and equipment to reduce their carbon emissions. A second Genco EE Grant Call was launched in January 2021 to support gencos' continual efforts to improve their energy efficiency.

EMA also formed the Generation Development Department to ensure that there will be adequate generation capacity to meet future demand. This will help to safeguard the security and reliability of Singapore's power system.



**By 2024,
advanced
electricity
meters will
be installed
in all
households**



Empowering Households

On the residential front, EMA aims to have advanced electricity meters installed in all households by 2024. Advanced meters will provide households with more timely information on their electricity usage, allowing them to better manage their energy consumption and become more energy efficient. Currently, advanced meters have been installed in around 400,000 households.

Inspiring Ideas

In partnership with Microsoft Singapore and supported by the Infocomm Media Development Authority, EMA launched the inaugural run of the Singapore Energy Grand Challenge (SEGC) (Youth) in March 2020. The Challenge aims to raise public awareness of Singapore's Energy Story and catalyse the co-creation of ideas on energy efficiency.

"How would your energy efficient school or neighbourhood in Singapore look like in 2050?" Prompted by this question, secondary school students used Minecraft: Education Edition, Microsoft's game-based learning platform, to design their vision of Singapore's energy future through an immersive online open-world game.

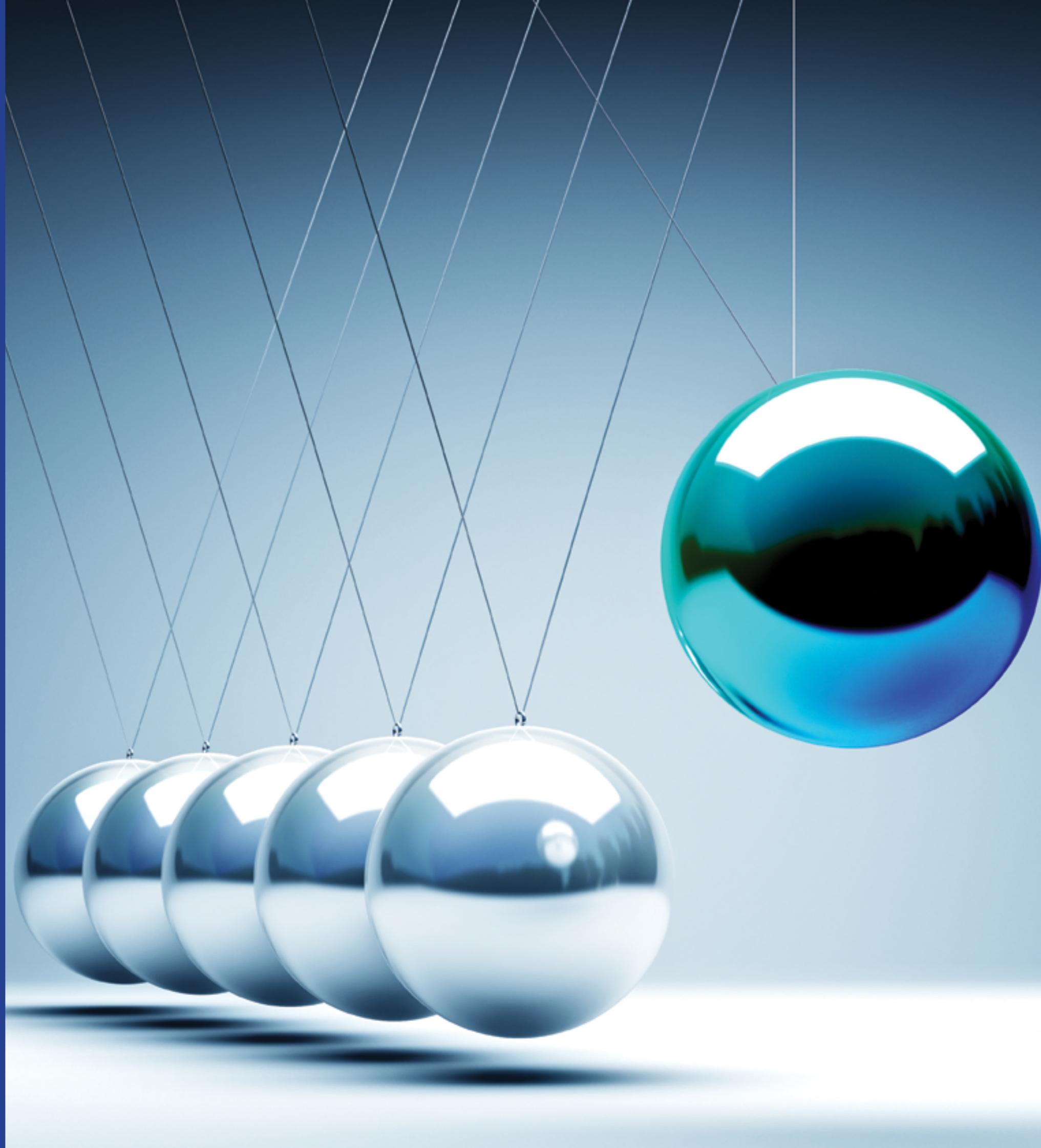
EMA also launched the inaugural SEGC (Industry and Research Community) in September 2020 to encourage the industry and research community to co-create innovative energy efficiency solutions for sectoral-level energy savings.



03

Engaging International & Local Stakeholders

The Energy Market Authority (EMA) continues to engage stakeholders both internationally and locally to establish energy thought leadership and co-create solutions for greater sustainability.





Enhancing Bilateral and Regional Engagement

EMA signed two Memorandums of Understanding with the Energy Commission Malaysia and the Electrical and Mechanical Services Department of Hong Kong, China. A Joint Statement of Intent to Cooperate was also made with the Gas and Electricity Markets Authority of the United Kingdom in 2020. These agreements promote cooperation on key energy issues such as market regulation, liquefied natural gas and low-carbon technologies.

EMA also participated in regional forums such as the East Asia Summit, G20, Asia-Pacific Economic Cooperation, and those under ASEAN. We convened the Asia Pacific Energy Regulatory Forum in August 2020 to promote cooperation and sharing of best practices. We also worked closely with major international energy organisations such as the International Energy Agency and the International Renewable Energy Agency.

A Boost for Local Start-ups

Locally, EMA has been working with the industry and research community to promote innovation and build capabilities in areas identified under Singapore's Energy Story.

In 2021, we renewed a two-year partnership with Shell to grow local energy start-ups and develop innovative energy solutions. Shortlisted start-ups will undergo a three-month accelerator programme organised by Shell and can tap on the company's network to reach out to investors and end-users. Promising start-ups are also invited to apply for post-programme funding to further develop their energy solutions.

04

Nurturing a Future-Ready Workforce

The Energy Market Authority (EMA) continues to work closely with our partners across industries, the Union of Power and Gas Employees, and Institutes of Higher Learning (IHLs) to enhance our suite of initiatives aimed at attracting, retaining and developing the power engineering workforce in both the public and private sectors.



To date, we have supported 90 Singaporeans in their upskilling efforts through the SkillsFuture Study Award for Power Sector. With this bond-free monetary award of \$5,000, recipients are encouraged to deepen their engineering skills in the power sector or related sectors. We have also awarded 85 scholarships to tertiary students under the Singapore-Industry Scholarship and Energy-Industry Scholarship. At our annual Youth@SIEW event, we engaged over 600 students from various IHLs.

We also worked with the Public Sector Science & Technology Policy and Plans Office and relevant agencies to develop the first Power Engineering Competency Framework. The framework aims to enhance training for power engineers in the public sector, by providing clarity on career progression pathways and articulating the skills and competencies required for each job role.

Organisational Transformation through Innovation and Data

EMA is committed to driving a learning culture through innovation and digital transformation. To achieve this, in-house digital solutions are designed and developed to facilitate learning and development within the organisation. Our officers are empowered to take charge of their own professional development with tools such as interactive learning catalogues, digital dashboards and workflows customised for the different segments of our workforce.

A Data Analytics Capabilities Roadmap was also rolled out in 2020. With a suite of curated programmes in place, it provides a more structured approach to upskilling our officers in data literacy and data analytics.

Over the past year, we continued to drive innovation with advanced data modelling techniques. We employed artificial intelligence and machine learning models to enhance our market development and surveillance capabilities. One exciting example of this involves the use of machine learning in predicting electricity spot market prices.

Giving Back to the Community

EMA organised several online sessions to raise digital awareness among the elderly residents of our adopted charity, Caregiving Welfare Association (CWA). During these sessions, we guided the residents in using WhatsApp and SingPass applications on their mobile devices.

Our annual donation drive saw over \$20,000 raised in support of CWA and the Muscular Dystrophy Association (Singapore).



Financial Highlights

for FY2020/21



For the year ended 31 March 2021, the Authority achieved a net surplus of \$5.414 million.

FINANCIAL RESULTS	FY2020/21 \$ Million	FY2019/20 \$ Million
Operating revenue	72.737	73.291
Operating expenses	(73.806)	(72.545)
Operating surplus / (deficit) before grant	(1.069)	0.746
Government grant	4.427	3.588
Non-operating revenue	3.167	5.705
Surplus before contribution to Government Consolidated Fund ("GCF")	6.525	10.039
Contribution to GCF	(1.111)	(1.708)
Net surplus for the year	5.414	8.331

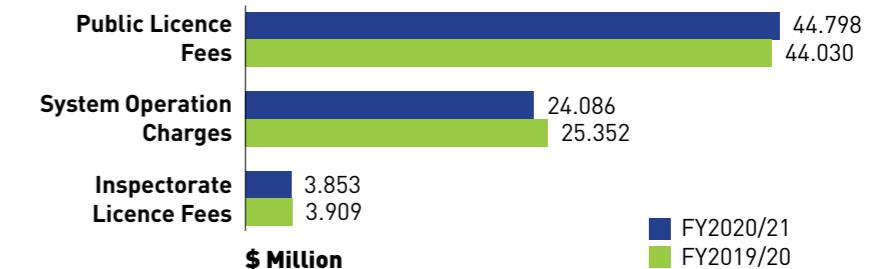
CAPITAL EXPENDITURE

The Authority spent \$1.420 million on IT systems and licences (\$1.005 million), furniture and fittings (\$0.346 million) and office equipment (\$0.069 million) in FY2020/21.

OPERATING REVENUE

Operating revenue for the Authority was \$72.737 million for FY2020/21, with the breakdown in the graph on the right.

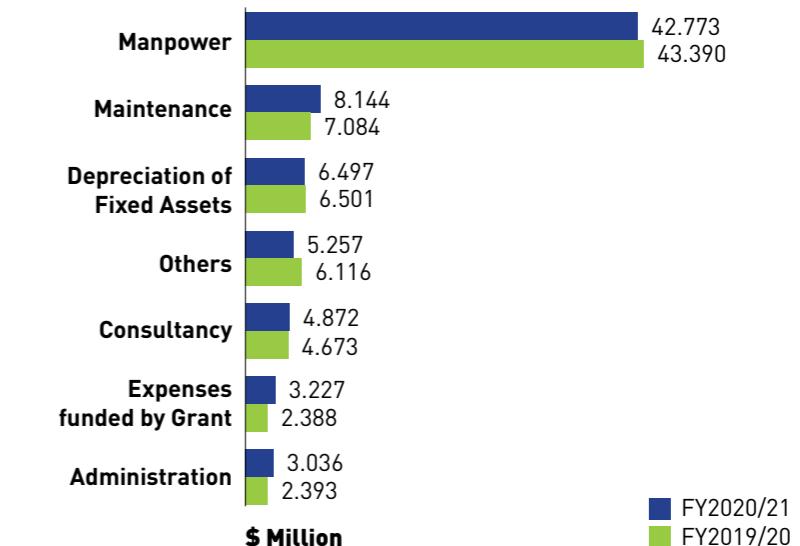
Operating Revenue Category



OPERATING EXPENSES

Operating expenses for the Authority totalled \$73.806 million for the year. The breakdown is as shown on the right.

Operating Expenses Category



Annual Financial Statements

for the Financial Year
ended 31 March 2021

- 1 Independent Auditor's Report
- 4 Statement of Comprehensive Income
- 5 Balance Sheet
- 6 Statement of Changes in Equity
- 7 Statement of Cash Flows
- 8 Notes to the Financial Statements

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 2021 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 2021;
- the balance sheet as at 31 March 2021;
- 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 statement 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.

**INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF
ENERGY MARKET AUTHORITY OF SINGAPORE (continued)**

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.

**INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF
ENERGY MARKET AUTHORITY OF SINGAPORE (continued)**

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.

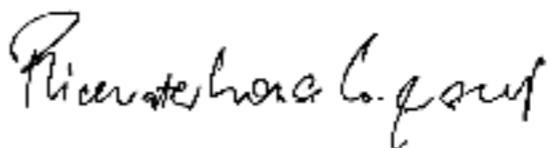
Responsibilities of Management for Compliance with Legal and Regulatory Requirements

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, 2 July 2021

ENERGY MARKET AUTHORITY OF SINGAPORE

STATEMENT OF COMPREHENSIVE INCOME

For the financial year ended 31 March 2021

	Notes	2020/21 \$'000	2019/20 \$'000
Operating revenue	3	72,737	73,291
Operating expenses	4	(73,806)	(72,545)
Operating (deficit) / surplus		(1,069)	746
Government grant	5	4,427	3,588
Operating surplus after grant		3,358	4,334
Non-operating revenue	5	3,167	5,705
Surplus before contribution to Government Consolidated Fund ("GCF")		6,525	10,039
Contribution to GCF	6	(1,111)	(1,708)
Surplus for the year and total comprehensive income		5,414	8,331

The financial statements as set out on pages 4 to 34 have been authorised for issue by the Authority.



RICHARD LIM CHERNG YIH
CHAIRMAN

2 JUL 2021



NGIAM SHIH CHUN
CHIEF EXECUTIVE

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

ENERGY MARKET AUTHORITY OF SINGAPORE

BALANCE SHEET

As at 31 March 2021

	Notes	2020/21 \$'000	2019/20 \$'000
EQUITY			
Capital account	13	86,674	86,674
Accumulated surplus		104,297	107,214
Total equity		190,971	193,888
Represented by:			
ASSETS			
Non-current assets			
Fixed assets	7	21,212	13,570
Other receivables	10	1,063	1,084
Loan receivables	15	208,631	390,486
Interest receivables	16	4,749	12,787
		235,655	417,927
Current assets			
Other receivables and prepayments	10	16,304	6,787
Cash and cash equivalents	11	154,389	152,878
Loan receivable	15	321,181	39,313
Interest receivables	16	9,015	3,030
		500,889	202,008
Total assets		736,544	619,935
LIABILITIES			
Current liabilities			
Other payables and provisions	12	27,157	16,085
Contract liabilities	3	2,851	-
Lease liabilities		3,920	2,143
Provision for contribution to Government Consolidated Fund ("GCF")		1,111	1,708
Loan payables	15	321,181	39,313
Interest payables	16	9,015	3,030
		365,235	62,279
Non-current liabilities			
Loan payables	15	168,631	350,486
Interest payables	16	-	8,918
Lease liabilities		11,196	3,853
Provision for office reinstatement		511	511
		180,338	363,768
Total liabilities		545,573	426,047
Net assets		190,971	193,888

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

ENERGY MARKET AUTHORITY OF SINGAPORE

STATEMENT OF CHANGES IN EQUITY

For the financial year ended 31 March 2021

	Capital account (Note 13) \$'000	Accumulated surplus \$'000	Total equity \$'000
At 1 April 2019	86,674	103,796	190,470
Total comprehensive income for the year	-	8,331	8,331
Dividends paid to the Government (Note 14)	-	(4,913)	(4,913)
At 31 March 2020 and at 1 April 2020	86,674	107,214	193,888
Total comprehensive income for the year	-	5,414	5,414
Dividends paid to the Government (Note 14)	-	(8,331)	(8,331)
At 31 March 2021	86,674	104,297	190,971

—
06

ENERGY MARKET AUTHORITY OF SINGAPORE

STATEMENT OF CASH FLOWS

For the financial year ended 31 March 2021

	Notes	2020/21 \$'000	2019/20 \$'000
Cash flows from operating activities			
Surplus before contribution to Government Consolidated Fund ("GCF")		6,525	10,039
Adjustments for:			
- Depreciation of fixed assets	7	6,497	6,501
- Loss on disposal of fixed assets	5	-	6
- Grants from the Government	5	(4,427)	(3,588)
- Interest income	5	(2,556)	(4,222)
- Interest expense	8	134	159
		6,173	8,895
Changes in working capital:			
- Other receivables and prepayments		(11,167)	954
- Other payables		13,996	3,002
Cash generated from operations		9,002	12,851
Payment to GCF		(1,708)	(1,517)
Net cash provided by operating activities		7,294	11,334
Cash flows from investing activities			
Purchase of fixed assets		(1,219)	(1,882)
Interest income received from funds managed under Centralised Liquidity Management		3,347	3,065
Net cash provided by investing activities		2,128	1,183
Cash flows from financing activities			
Payment of dividends to the Government		(8,331)	(4,913)
Grants received from the Government		4,427	3,588
Principal repayment of lease liabilities		(3,873)	(3,754)
Interest paid on lease liabilities		(134)	(159)
Net cash used in financing activities		(7,911)	(5,238)
Net increase in cash and cash equivalents		1,511	7,279
Cash and cash equivalents at beginning of year		152,878	145,599
Cash and cash equivalents at end of year	11	154,389	152,878

Reconciliation of liabilities arising from financing activities

				Non-cash changes				
	1 April \$'000	Principal and interest payments \$'000	Adoption of FRS 116 \$'000	Rent concession \$'000	Interest expense \$'000	Addition - new leases \$'000	31 March \$'000	
FY2020/21								
Lease liabilities	5,996	(3,934)	-	(73)	134	12,993	15,116	
FY2019/20								
Lease liabilities	-	(3,913)	4,102	-	159	5,648	5,996	

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

—
07

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 2018, Act 5 of 2018 (the Public Sector (Governance) Act), the Energy Market Authority of Singapore Act (Cap. 92B) and Statutory Board Financial Reporting Standards (“SB-FRS”) prepared under historical cost convention, except as disclosed in the account 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 2020

On 1 April 2020, the Authority adopted the new or amended SB-FRS and Interpretations of SB-FRS (“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.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

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

Early adoption of amendment to SB-FRS 116 Leases

The Authority has elected to early adopt the amendments to SB-FRS 116 which introduced a practical expedient for a lessee to elect not to assess whether a rent concession is a lease modification, if all the following conditions are met:

- (a) the change in lease payments results in revised consideration for the lease that is substantially the same as, or less than, the consideration for the lease immediately preceding the change;
- (b) any reduction in lease payments affects only payments originally due on or before 30 June 2021; and
- (c) there is no substantive change to other terms and conditions of the lease.

The Authority has elected to apply this practical expedient to all property leases. As a result of applying the practical expedient, rent concessions of \$73,000 was recognised within Non-operating revenue (Note 5) in the profit or loss during the year.

2.2 Revenue

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. Significant accounting policies (continued)

2.3 Employee compensation

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 Leases

(a) When the Authority is the lessee

At the inception of the contract, the Authority assesses if the contract contains a lease. A contract contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Reassessment is only required when the terms and conditions of the contract are changed.

• Right-of-use assets

The Authority recognises a right-of-use asset and lease liability at the date which the underlying asset is available for use. Right-of-use assets are measured at cost which comprises the initial measurement of lease liabilities adjusted for any lease payments made at or before the commencement date and lease incentive received. Any initial direct costs that would not have been incurred if the lease had not been obtained are added to the carrying amount of the right-of-use assets.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

Right-of-use assets are presented within "Fixed assets".

2. Significant accounting policies (continued)

2.4 Leases (continued)

(a) When the Authority is the lessee (continued)

• Lease liabilities

Lease liability is measured at amortised cost using the effective interest method. Lease liability shall be remeasured when:

- There is a change in future lease payments arising from changes in an index or rate;
- There is a change in the Authority's assessment of whether it will exercise an extension option; or
- There is modification in the scope or the consideration of the lease that was not part of the original term.

Lease liability is remeasured with a corresponding adjustment to the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

• Short term and low value leases

The Authority has elected to not recognise right-of-use assets and lease liabilities for short-term leases that have lease terms of 12 months or less and leases of low value leases, except for sub-lease arrangements. Lease payments relating to these leases are expensed to profit or loss on a straight-line basis over the lease term.

(b) When the Authority is the lessor

The accounting policy applicable to the Authority as a lessor in the comparative period were the same under SB-FRS 116 except when the Authority is an intermediate lessor.

In classifying a sub-lease, the Authority as an intermediate lessor classifies the sub-lease as a finance or an operating lease with reference to the right-of-use asset arising from the head lease, rather than the underlying asset.

2. Significant accounting policies (continued)**2.4 Leases (continued)**

(b) When the Authority is the lessor (continued)

When the sub-lease is assessed as a finance lease, the Authority derecognises the right-of-use asset relating to the head lease that it transfers to the sub-lessee and recognises the net investment in the sub-lease within "Other receivables and prepayments". Any differences between the right-of-use asset derecognised and the net investment in sub-lease is recognised in profit or loss. Lease liability relating to the head lease is retained in the balance sheet, which represents the lease payments owed to the head lessor.

When the sub-lease is assessed as an operating lease, the Authority recognise lease income from sub-lease in profit or loss within "Non-operating income". The right-of-use asset relating to the head lease is not derecognised.

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:

	<u>Useful lives</u>
Leasehold properties	1 to 6 years
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 to 5 years

2. Significant accounting policies (continued)**2.5 Fixed assets (continued)**

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.

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 fixed assets initially recognised includes its purchase price and any cost that is 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.

2.6 Impairment of non-financial assets

Fixed assets and right-of-use 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. Significant accounting policies (continued)**2.7 Financial assets**

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.

(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.

For cash and cash equivalents, other receivables (excluding prepayments), interest and loan receivables, the general 3 stage approach is applied. Credit loss allowance is based on 12-month expected credit loss if there is no significant increase in credit risk since initial recognition of the assets. If there is a significant increase in credit risk since initial recognition, lifetime expected credit loss will be calculated and recognised.

2. Significant accounting policies (continued)**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

For the purpose of presentation in the statement of cash flows, 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.

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

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

16

2.15 Government grants

Grants from the Government are recognised as a receivable at their fair value 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 in the Statement of Comprehensive Income.

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

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

3. Revenue from contracts with customers

(a) Disaggregation of operating revenue

	At a point in time \$'000	Over time \$'000	Total \$'000
2020/21			
Public licence fees	-	44,798	44,798
Other licence fees	3,853	-	3,853
System operation charges	-	24,086	24,086
	3,853	68,884	72,737

2019/20

Public licence fees	-	44,030	44,030
Other licence fees	3,909	-	3,909
System operation charges	-	25,352	25,352
	3,909	69,382	73,291

(b) Contract liabilities

	31 March 2021 \$'000	1 April 2020 \$'000	1 April 2019 \$'000
<u>Contract liabilities</u>			

- Public licence fees

2,851	-	-
--------------	---	---

Unsatisfied performance obligations

	2020/21 \$'000	2019/20 \$'000
Aggregate amount of the transaction price allocated to contracts that are partially or fully unsatisfied as at 31 March		

- Public licence fees

2,851	-
--------------	---

The Authority expects that the transaction price allocated to unsatisfied performance obligations as at 31 March 2021 will be recognised as revenue in the next financial reporting period.

17

ENERGY MARKET AUTHORITY OF SINGAPORE
NOTES TO THE FINANCIAL STATEMENTS
For the financial year ended 31 March 2021
4. Operating expenses

	Notes	2020/21 \$'000	2019/20 \$'000
Operating expenses			
Manpower	4a	42,773	43,390
Administration		3,036	2,393
Depreciation of fixed assets	7	6,497	6,501
Maintenance		8,144	7,084
Consultancy		4,872	4,673
Interest expense on lease liabilities	8	134	159
Expenses funded by grant		3,227	2,388
Others		5,123	5,957
		73,806	72,545

(a) Manpower expenses include the following:

	2020/21 \$'000	2019/20 \$'000
Salaries and salary related expenses	36,431	36,405
CPF contributions	4,139	4,184

5. Other income

	2020/21 \$'000	2019/20 \$'000
Interest earned from deposits with AGD [#] and loan	2,550	4,215
Interest income on sub-leases	6	7
Sponsorship for event	509	701
Loss on disposal of fixed assets	-	(6)
Penalty charges/fines	-	658
Other receipts*	102	130
Non-operating revenue	3,167	5,705

Government grant income **4,427** 3,588

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

* Included COVID-19 related rent concessions of \$73,000 which the Authority applied the practical expedient as disclosed in Note 2.1.

ENERGY MARKET AUTHORITY OF SINGAPORE
NOTES TO THE FINANCIAL STATEMENTS
For the financial year ended 31 March 2021
6. 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% (FY2019/20: 17%) of the surplus of the Authority for the financial year.

7. Fixed assets

	Leasehold properties \$'000	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
2020/21 Cost								
Beginning of financial year	9,888	27,338	476	140	4,386	925	245	43,398
Additions	13,035	860	19	-	88	69	424	14,495
Disposals	(4,019)	(685)	-	-	(290)	(36)	-	(5,030)
Reclassifications	-	308	-	-	-	-	(308)	-
End of financial year	18,904	27,821	495	140	4,184	958	361	52,863
Accumulated depreciation								
Beginning of financial year	4,161	20,602	451	25	4,252	337	-	29,828
Depreciation charge for the financial year	3,860	2,378	16	14	99	130	-	6,497
Disposals	(4,019)	(392)	-	-	(290)	(36)	-	(4,737)
Reclassifications	-	63	-	-	-	-	-	63
End of financial year	4,002	22,651	467	39	4,061	431	-	31,651
Net book value								
End of financial year	14,902	5,170	28	101	123	527	361	21,212
2019/20 Cost								
Beginning of financial year	-	26,586	1,009	140	5,917	421	1,236	35,309
Adoption of SB-FRS 116	4,463	-	-	-	(400)	-	-	4,063
Additions	5,425	831	16	-	51	55	1,534	7,912
Disposals	-	(2,604)	(549)	-	(605)	(128)	-	(3,886)
Reclassifications	-	2,525	-	-	(577)	577	(2,525)	-
End of financial year	9,888	27,338	476	140	4,386	925	245	43,398
Accumulated depreciation								
Beginning of financial year	-	20,777	974	11	5,107	338	-	27,207
Adoption of SB-FRS 116	400	-	-	-	(400)	-	-	-
Depreciation charge for the financial year	3,761	2,423	26	14	198	79	-	6,501
Disposals	-	(2,598)	(549)	-	(605)	(128)	-	(3,880)
Reclassifications	-	-	-	-	(48)	48	-	-
End of financial year	4,161	20,602	451	25	4,252	337	-	29,828
Net book value								
End of financial year	5,727	6,736	25	115	134	588	245	13,570

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

8. Leases – The Authority as a lessee

Nature of the Authority's leasing activities

Leasehold properties

The Authority leases office space for its operations.

There are no externally imposed covenants on these lease arrangements.

(a) Carrying amounts

ROU assets classified within fixed assets

	31 March 2021 \$'000	31 March 2020 \$'000
Leasehold properties	<u>14,902</u>	5,727

(b) Depreciation charge during the year

	2020/21 \$'000	2019/20 \$'000
Leasehold properties	<u>3,860</u>	3,761

(c) Interest expense

	2020/21 \$'000	2019/20 \$'000
Interest expense on lease liabilities	<u>134</u>	159

(d) Lease expense not capitalised in lease liabilities

	2020/21 \$'000	2019/20 \$'000
Low-value lease expense	<u>294</u>	259

(e) Total cash outflow for all leases in FY2020/21 was \$4,301,000 (FY2019/20: \$4,172,000).

(f) Addition of ROU assets during FY2020/21 was \$13,035,000 (FY2019/20: \$5,425,000).

(g) There were no future cash outflows which are not capitalised in lease liabilities.

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

9. Leases – The Authority as an intermediate lessor

The Authority's sub-lease of its right-of-use of the office space is classified as finance lease because the sub-lease is for the entire remaining lease term of the head lease.

ROU assets relating to the head leases with sub-leases classified as finance lease is derecognised. The net investment in the sub-lease is recognised as "Lease Receivables" under "Other receivables and prepayments" (Note 10).

Finance income on the net investment in sub-lease during the financial year is \$5,702 (FY2019/20: \$7,000), which has been recognised within "Others" under "Other income" (Note 5).

The following table shows the maturity analysis of the undiscounted lease payments to be received:

	31 March 2021 \$'000	31 March 2020 \$'000
Less than one year	66	79
One to two years	61	66
Two to three years	61	61
Three to four years	61	61
Four to five years	-	61
Five to six years	-	-
Total undiscounted lease payments	249	328
Less: Unearned finance income	(10)	(16)
Net investment in finance lease	239	312

There were no new sub-lease arrangements during the current financial year ended 31 March 2021.

ENERGY MARKET AUTHORITY OF SINGAPORE
NOTES TO THE FINANCIAL STATEMENTS
For the financial year ended 31 March 2021
10. Other receivables and prepayments

	2020/21 \$'000	2019/20 \$'000
Non-current assets:		
Lease receivables	179	239
Deposits	884	845
Total other receivables	1,063	1,084
 Current assets:		
Accrued interest income	382	2,059
Grant receivables	10,844	2,683
Other receivables	3,972	1,339
Lease receivables	60	73
Deposits	2	2
Prepayments	1,044	631
Total other receivables and prepayments	16,304	6,787

11. Cash and cash equivalents

	Note	2020/21 \$'000	2019/20 \$'000
Cash with AGD	11(a)	154,388	152,865
Cash and bank balances		1	13
Cash and cash equivalents per balance sheet		154,389	152,878

- (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 0.28% to 1.52% per annum (FY2019/20: 1.67% to 2.13% per annum).

12. Other payables and provisions

	2020/21 \$'000	2019/20 \$'000
Other creditors and accruals	20,769	11,221
Accrued capital expenditure	846	605
Accrual for employee expenses	2,423	2,357
Provision for unutilised leave	3,119	1,902
Total	27,157	16,085

ENERGY MARKET AUTHORITY OF SINGAPORE
NOTES TO THE FINANCIAL STATEMENTS
For the financial year ended 31 March 2021
13. 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.

14. Dividends

	2020/21 \$'000	2019/20 \$'000
<i>Ordinary dividends</i>		
Dividends paid in respect of the financial year	8,331	4,913

15. Loan receivables and loan payables
Loan receivables
Current

Loan receivable from SLNG Corp (a)	147,615	24,024
Loan receivable from SPS – FSC (b)	28,117	15,289
Loan receivable from SPS – MDRS (c)	145,449	-
	321,181	39,313

Non-Current

Loan receivable from SLNG Corp (a)	40,000	202,615
Loan receivable from SPS – FSC (b)	158,124	187,871
Loan receivable from SPS – MDRS (c)	10,507	-
	208,631	390,486

Total loan receivables

529,812	429,799
---------	---------

23

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

15. Loan receivables and loan payables (continued)

(a) *Loan receivable from SLNG Corp*

	2020/21 \$'000	2019/20 \$'000
As at 1 April	226,639	227,690
Loan drawdown during the year	-	-
Loan repayment during the year	(39,024)	(1,051)
As at 31 March	187,615	226,639
Current	147,615	24,024
Non-current	40,000	202,615

As at 31 March 2021, the Authority has two (31 March 2020: two) outstanding back-to-back loan agreements signed between April 2014 to November 2014 with Singapore LNG Corporation Pte Ltd ("SLNG Corp") and the Government. Of these two loans, one loan facility of \$281 million is to fund the costs for the costs for the SLNG terminal while the other loan facility of \$300 million is for general working capital. The two loan facilities are unsecured and carry a fixed interest rate that approximated prevailing market rates at the time of issue.

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 2021, is also unsecured and carries a fixed interest rate that approximated prevailing market rates at the time of issue.

(b) *Loan receivable from SPS – FSC*

	2020/21 \$'000	2019/20 \$'000
As at 1 April	203,160	203,017
Loan drawdown during the year	-	-
Loan repayment during the year	(17,061)	-
Amortisation of upfront fees	142	143
As at 31 March	186,241	203,160
Current	28,117	15,289
Non-current	158,124	187,871

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 (FSC). The loan is unsecured and carries floating interest rate. As at 31 March 2021, the net loan balance was \$186 million (31 March 2020: \$203 million) after amortisation of upfront fee which was netted against the carrying amount of the loan at the inception of the loan.

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

15. Loan receivables and loan payables (continued)

(b) *Loan receivable from SPS – FSC (continued)*

To finance the loan to SPS, the Authority obtained an unsecured bank loan facility of up to \$228 million, of which the net loan balance was \$186 million (after amortisation of upfront fee which was netted against the carrying amount of the loan at the inception of the loan) as at 31 March 2021 (31 March 2020: \$203 million).

(c) *Loan receivable from SPS – MDRS*

	2020/21 \$'000	2019/20 \$'000
As at 1 April	-	-
Loan drawdown during the year	155,956	-
Loan repayment during the year	-	-
As at 31 March	155,956	-
Current	145,449	-
Non-current	10,507	-

On 3 July 2020, the Authority granted SPS a new loan facility of up to \$250 million to fund Market Development and Resilience Scheme (MDRS), a voluntary scheme to incentivise participating GENCOs (otherwise known as power generation companies) to ensure high operational reliability and develop the capabilities of their employees and adopt good labour management practices. The loan facility is unsecured and carry a fixed interest rate that approximated prevailing market rates at the time of issue.

To finance the loan to SPS, the Authority obtained an unsecured loan facility of up to \$250 million from the Government at a fixed interest rate which approximated to prevailing market rates at the time of issue. This is a back-to-back loan arrangement with SPS and the Government.

	2020/21 \$'000	2019/20 \$'000
Loan payables		
Current		
Loan payable to the Government – SLNG Corp (d)	147,615	24,024
Loan payable to the Government – MDRS (e)	145,449	-
Loan payable to the Bank - FSC (f)	28,117	15,289
	321,181	39,313

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

15. Loan receivables and loan payables (continued)

(c) *Loan receivable from SPS – MDRS (continued)*

	2020/21 \$'000	2019/20 \$'000
<u>Non-Current</u>		
Loan payable to the Government – SLNG Corp (d)	-	162,615
Loan payable to the Government – MDRS (e)	10,507	-
Loan payable to the Bank - FSC (f)	158,124	187,871
	<u>168,631</u>	<u>350,486</u>
Total loan payables	489,812	389,799

(d) *Loan payable to the Government – SLNG Corp*

	2020/21 \$'000	2019/20 \$'000
As at 1 April		
Loan drawdown during the year	186,639	187,690
Loan repayment during the year	(39,024)	(1,051)
As at 31 March	<u>147,615</u>	<u>186,639</u>
Current	147,615	24,024
Non-current	-	162,615

(e) *Loan payable to the Government – SPS*

	2020/21 \$'000	2019/20 \$'000
As at 1 April		
Loan drawdown during the year	155,956	-
Loan repayment during the year	-	-
As at 31 March	<u>155,956</u>	-
Current	145,449	-
Non-current	10,507	-

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

15. Loan receivables and loan payables (continued)

(f) *Loan payable to the Bank – FSC*

	2020/21 \$'000	2019/20 \$'000
As at 1 April		
Loan drawdown during the year	203,160	203,017
Loan repayment during the year	(17,061)	-
Amortisation of upfront fees	142	143
As at 31 March	<u>186,241</u>	<u>203,160</u>
Current	28,117	15,289
Non-current	<u>158,124</u>	<u>187,871</u>

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 three loan facilities are netted off in the statement of comprehensive income.

16. Interest receivables and interest payables

Interest receivables

Current

Interest receivable from SLNG Corp (a)	8,917	2,972
Interest receivable from SPS – FSC (b)	98	58
	<u>9,015</u>	<u>3,030</u>

Non-Current

Interest receivable from SLNG Corp (a)	4,749	12,787
Interest receivable from SPS – FSC (b)	-	-
	<u>4,749</u>	<u>12,787</u>

Total interest receivables

13,764

15,817

Interest payables

Current

Interest payable to the Government – SLNG (c)	8,917	2,972
Interest payable to the Bank – FSC (d)	98	58
	<u>9,015</u>	<u>3,030</u>

Non-Current

Interest payable to the Government – SLNG (c)	-	8,918
Interest payable to the Bank - FSC (d)	-	-
	<u>-</u>	<u>8,918</u>

Total interest payables

9,015

11,948

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

16. Interest receivables and interest payables (continued)

(a) *Interest receivable from SLNG Corp*

	2020/21 \$'000	2019/20 \$'000
As at 1 April	15,759	13,889
Interest charged during the year	5,766	6,149
Interest repayment during the year	(7,859)	(4,279)
As at 31 March	13,666	15,759
Current	8,917	2,972
Non-current	4,749	12,787

(b) *Interest receivable from SPS – FSC*

	2020/21 \$'000	2019/20 \$'000
As at 1 April	58	142
Interest charged during the year	1,131	4,078
Interest repayment during the year	(1,091)	(4,162)
As at 31 March	98	58
Current	98	58

(c) *Interest payable to the Government – SLNG*

	2020/21 \$'000	2019/20 \$'000
As at 1 April	11,890	10,903
Interest charged during the year	4,886	5,266
Interest repayment during the year	(7,859)	(4,279)
As at 31 March	8,917	11,890
Current	8,917	2,972
Non-current	-	8,918

(d) *Interest payable to the Bank - FSC*

	2020/21 \$'000	2019/20 \$'000
As at 1 April	58	142
Interest charged during the year	1,131	4,078
Interest repayment during the year	(1,091)	(4,162)
As at 31 March	98	58
Current	98	58

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

17. 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 2021 for the Authority amounted to \$3.0 million (31 March 2020: \$1.5 million).

The Authority has entered into loan agreements with SLNG Corp and SPS. The outstanding undrawn loan commitment amounted to \$394 million (31 March 2020: \$300 million) which pertains to back-to-back agreements which the Authority signed with the Government of the Republic of Singapore ("the Government").

18. Financial risk management

The Authority is exposed to financial risks arising from its operations and the use of financial instruments. The 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 were:

	2020/21 \$'000	2019/20 \$'000
Variable rate instruments		
Cash with AGD	154,388	152,865

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).

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 decrease/increase by 1.15% (FY2019/20: 0.18%) at the end of the reporting period with all other variables held constant, the Authority's net surplus before GCF will be lower/higher by about \$1.8 million (FY2019/20: \$0.3 million).

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

18. Financial risk management (continued)

(a) Interest rate risk (continued)

At the end of the reporting period, the following loan pertains to FSC floating rate loan (Note 15(b) and 15(f)):

	2020/21	2019/20
	\$'000	\$'000
Loan payable	(186,241)	(203,160)
Loan receivable	186,241	203,160

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.

(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.

ENERGY MARKET AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 March 2021

18. Financial risk management (continued)

(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 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
2020/21		
Interest payable to bank	(1,665)	(3,290)
Loan payable to bank [#]	(28,260)	(158,445)
Interest payable to the Government	(12,529)	(15)
Loan payable to the Government	(293,064)	(10,507)
Lease liabilities	(4,045)	(11,349)
Other payables*	(24,038)	-
Total net undiscounted financial liabilities	(363,601)	(183,606)
2019/20		
Interest payable to bank	(3,124)	(5,972)
Loan payable to bank [#]	(15,432)	(188,333)
Interest payable to the Government	(7,963)	(11,763)
Loan payable to the Government	(24,024)	(162,615)
Lease liabilities	(2,237)	(4,012)
Other payables*	(14,183)	-
Total net undiscounted financial liabilities	(66,963)	(372,695)

Excludes amortised upfront fee

* Excludes provision

18. Financial risk management (continued)

(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 rates of 1.12%, 1.29% and 1.45% (FY2019/20: 1.71%) per annum, which are determined based on a 1 year, 2 years and 3 years (FY2019/20: 4 years) swap offer rates respectively 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)

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

	<u>Level 2</u> \$'000
2020/21	
Fixed rate loan due from SLNG Corp, including accrued interests	202,283
Fixed rate loan due from SPS, including accrued interests	239,677
Fixed rate loan due to Government, including accrued interests	<u>(396,585)</u>
2019/20	
Fixed rate loan due from SLNG Corp, including accrued interests	245,491
Fixed rate loan due to Government, including accrued interests	<u>(201,230)</u>

18. Financial risk management (continued)

(e) Financial instruments by category

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

	2020/21 \$'000	2019/20 \$'000
Financial assets at amortised cost		
Other receivables [#]	16,323	7,240
Cash and cash equivalents	154,389	152,878
Interest receivables	13,764	15,817
Loan receivables	<u>529,812</u>	429,799
	714,288	605,734

Financial liabilities at amortised cost

	2020/21	2019/20
Other payables*	24,038	14,183
Contract liabilities	2,851	-
Lease liabilities	15,116	5,996
Interest payables	9,015	11,948
Loan payables	<u>489,812</u>	389,799
	540,832	421,926

Excludes prepayments

* Excludes provision

19. 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 significant transactions with its related parties during the year:

	2020/21 \$'000	2019/20 \$'000
<i>Ministry of Trade and Industry</i>		
Operating Grant	4,427	3,588
<i>Singapore LNG Corporation Pte Ltd</i>		
Public Licence Fees	<u>3,189</u>	3,189

ENERGY MARKET AUTHORITY OF SINGAPORE**NOTES TO THE FINANCIAL STATEMENTS***For the financial year ended 31 March 2021***19. Related party transactions (continued)****Key management personnel compensation**

	2020/21 \$'000	2019/20 \$'000
Authority members' allowance	152	152
Salaries, bonuses and allowances	2,500	2,309
CPF contributions	83	79
	2,735	2,540

20. New or revised accounting standards and interpretations

Certain new accounting standards and interpretations have been published that are not mandatory for 31 March 2021 reporting periods and have not been early adopted by the Authority. These standards are not expected to have a material impact on the Authority in the current or future reporting periods and on foreseeable future transactions.

21. Events occurring after balance sheet date

On 9 April 2021, the Authority secured two uncommitted credit loan facilities of \$200 million each from two commercial banks.

On 11 June 2021, SLNG Corp repaid in full their outstanding loan balances as at 31 March 2021. A total of \$202.3 million was repaid, out of which \$44.7 million was reported as a non-current receivable as at 31 March 2021.

22. Authorisation of financial statements

The financial statements of the Authority for the financial year ended 31 March 2021 were authorised for issue in accordance with a resolution of the Authority on 2 July 2021.



Smart Energy, Sustainable Future

**991G Alexandra Road #01-29
Singapore 119975**

T +65 6835 8000
F +65 6835 8020
W www.ema.gov.sg