

## **PUBLIC VERSION**

# **EMC's NEMS Budget for the Financial Year Ending 30 June 2025**

## BUDGET FOR FY2024/25

### 1. INTRODUCTION

Singapore’s core inflation hit a high of 4.2% in 2023 and GDP growth was 1%, moderated from 2022 growth of 3.8%. Looking ahead at 2024, the downside risks remain with the geopolitical developments and conflicts around the world and the renewed risks of further escalation in trade tensions. The Ministry of Trade and Industry forecast the 2024 GDP growth to be between 1 to 3% and core inflation to slow to 2.5% to 3.5%, largely impacted by increases in the GST rate and increases in public transport, electricity and gas tariffs in early 2024.

Singapore’s electricity demand has been steadily increasing and we expect the trend to continue in line with the GDP growth. EMC is committed to working with the regulators and industry members in building a resilient power system for sustainable decarbonisation during this energy transition phase. EMC will be investing in the necessary technology to enhance its security posture, operational efficiency and system resiliency to provide the market with a satisfactory level of service while preserving the financial integrity and governance structure of the market. To keep abreast with the market developments, another area of focus will be in staff development.

### 2. NEMS ACTUAL AND BUDGET ASSUMPTIONS

#### 2.1 Revenue

Under the revenue regulatory regime for the 5 years from 1 July 2023 to 30 June 2028, EMC is allowed to charge fixed and variable fees.

The following categories of fixed fees remain unchanged since it was implemented on 1 July 2018:

- a) Annual market participant fee of \$10,000 per market participant
- b) One-off market participant registration fee of \$5,000 per registration
- c) RSA hardware token fee (from 6<sup>th</sup> token onwards per MP) of \$350 per token

The variable fee is calculated as follows:

$$\frac{\text{EMC's Allowed Revenue} - \text{Projected Revenue from Fixed Fees}}{\text{Forecast Traded Volume}}$$

The price cap on the variable fee for the period covered in this paper is as follows:

Price Cap (Cents/MWh)	Forecast FY2023/24	Budget FY2024/25
1 July to 30 June	37.03	36.86

An annual adjustment is made to the price cap for exogenous costs and any deviation between the projected and actual revenue collected from fixed and variable fees.

## 2.2 Manpower Costs

Fueled by strong growth in AI technology and renewable energy sectors, competition for talents in these fields intensifies within the labour market. With nearly 3 quarters into the financial year, the attrition rates rose to 12% by February 2024, up from 11% in FY22/23. To counteract this trend and mitigate further talent drain, the manpower budget is designed towards staff development and engagement initiatives. These efforts aim not only to retain existing talent but also to allure new skilled professionals to fill vacant positions within the organization.

In FY2024/25, the approved permanent headcount supporting NEMS remains unchanged at 74.

In line with Condition 3 of the Electricity Licence for Market Company, EMC shall maintain separate accounts for its authorised business. NEMS manpower supporting allowed activities are charged out from the NEMS accounts.

Manpower resources directly involved in the development of capital projects are capitalised.

## 2.3 Depreciation and Amortisation

All fixed assets are depreciated over three years except for IT servers which are depreciated over five years. Leasehold renovations are depreciated over the life of the lease.

For leased assets, the cost of the right-to-use asset is recognised as an asset at the commencement of the lease and the depreciation charge for the right-of-use asset is reflected in the profit and loss statement.

## 2.4 Other Operating Expenses

Other operating costs (i.e. excluding manpower, depreciation, technology, market operator licence fees and office rental costs) are generally assumed to increase at an average of 2% year-on-year which is in line with the MAS core inflation<sup>1</sup> excluding GST impact.

## 2.5 Taxes

Capital allowances are assumed to be fully claimed on all IT capital expenditure in the year of its incurrence and over three years for office renovation and equipment.

## 2.6 Business Development

Business development costs will be accounted for separately from NEMS activities and do not form part of the NEMS revenue determination.

## 2.7 Capital Expenditure

Capital expenditure (CAPEX) is based on regulatory requirements, system replacements and upgrades recommended by IT. Detailed breakdown of the capital expenditure and project justifications is provided in Section 4.

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<sup>1</sup> MAS Monetary Policy Statement published on 29 January 2024

## 2.8 Gearing & Share Capital

It is assumed that EMC will not take on loans and there will not be any change in share capital.

## 2.9 Dividend

Dividend declarations each year will be subject to the directors' consideration of reasonableness and prudence.

## 3. NEMS BUDGET FOR FY2024/25

### 3.1 Summary

FY2023/24 forecast net operating profit for NEMS of \$7,309K is better than budgeted by \$1,217K. This is contributed by higher market data subscription revenue, lower IT spend as projects commenced later than planned and lower cost incurred for premises, legal and other operating expenses.

Budgeted net operating profit for FY2024/25 was \$849K higher compared to FY2023/24 forecast due to higher NEMS fees, partially offset by higher manpower cost.

### 3.2 NEMS Revenue and Expenses

Description	FY24/25 Budget S\$'000	FY23/24	
		Forecast S\$'000	Budget S\$'000
NEMS Fees <sup>1</sup>	43,822	39,042	42,520
Exogenous Item	-	3,498	-
Other Income	-	4	-
Market Data Subscription	350	365	275
<b>Total NEMS revenue</b>	<b>44,172</b>	<b>42,909</b>	<b>42,796</b>
Manpower	14,006	13,596	13,605
Other Operating Expenses	22,008	22,004	23,099
<b>Total NEMS Operating Expenses</b>	<b>36,013</b>	<b>35,600</b>	<b>36,704</b>
<b>NEMS Operating Profit (before tax)</b>	<b>8,159</b>	<b>7,309</b>	<b>6,092</b>

Note 1: NEMS fees comprise both fixed and variable fees.

### 3.2.1 Forecast FY2023/24 vs. Budget FY2023/24

#### 3.2.1.1 Revenue

FY2023/24 forecast revenue is \$114K above FY2023/24 budget mainly due to higher market data subscription revenue and NEMS token fees.

### 3.2.1.2 Salaries & Related Costs

FY2023/24 forecast is marginally lower than FY2023/24 budget due to staff attrition and lower bonus, partially offset by lower manpower capitalised.

### 3.2.1.3 Other Operating Expenses

FY2023/24 forecast is \$1,095K lower than FY2023/24 budget mainly due to the following:

- Lower IT service cost (\$934K) mainly due to projects such as NEMS database hardware refresh and NEMS secure portal revamp starting later than planned;
- Lower utilities and office maintenance (\$161K), legal cost (\$86K), panel cost (\$52K) and communications and marketing (\$47K); partially offset by
- Higher depreciation expenses (\$244K).

## 3.2.2 Budget FY2024/25 vs Forecast FY2023/24

### 3.2.2.1 Revenue

NEMS revenue increased by \$1,263K mainly due to the higher variable fees in line with the higher price cap, partially offset by lower data subscription revenue.

### 3.2.2.2 Detailed Expenses

Description	FY24/25	FY23/24	Variance		FY23/24
	Budget	Forecast	S\$'000	%	Budget
	S\$'000	S\$'000			S\$'000
Salaries and employment benefits	14,006	13,596	410	3.0%	13,605
Depreciation of plant and equipment	6,251	7,222	(972)	(13.5%)	6,978
Market Operator licence fee	4,506	4,171	335	8.0%	4,171
IT service costs	7,460	7,227	233	3.2%	8,161
Office Maintenance, Rental & Utilities	1,753	1,527	226	14.8%	1,688
Legal and professional fees	640	465	175	37.5%	540
Directors' fees	175	196	(21)	(10.5%)	175
Audit fees	339	320	20	6.2%	333
Communications & PR	96	214	(118)	(55.2%)	261
Insurance expenses	161	159	2	1.5%	178
Panel fees and expenses	327	283	44	15.4%	335
Other operating expenses	300	220	80	36.1%	278
<b>Total NEMS expenses</b>	<b>36,013</b>	<b>35,600</b>	<b>414</b>	<b>1.2%</b>	<b>36,704</b>

### 3.2.2.3 Manpower Costs

The FY2024/25 budgeted headcount by departments is as follows:

Headcount	FY24/25 Budget	FY23/24 Forecast	FY23/24 Budget
CEO Office	1	1	1
Corporate Services	11	11	11
Market Administration	7	7	7
Information Technology	22	22	22
Information Security	5	5	5
Market Operations	18	18	18
Market Assessment Unit	6	6	6
Communications	2	2	2
Human Resources	2	2	2
<b>Total</b>	<b>74</b>	<b>74</b>	<b>74</b>

### 3.2.2.4 Manpower costs are broken down as follows:

Manpower Costs	FY24/25 Budget S\$'000	FY23/24 Forecast S\$'000	Variance (FY24/25 Budget vs FY23/24 Forecast)		FY FY23/24 Budget S\$'000	Variance (FY FY23/24 Forecast vs FY23/24 Budget)	
			S\$'000	%		S\$'000	%
Salaries and 13 <sup>th</sup> Month	10,142	9,284	858	9.2%	9,990	(706)	(7.1%)
Performance Bonus	2,623	2,346	277	11.8%	2,588	(242)	(9.3%)
Central Provident Fund	1,103	1,097	6	0.6%	1,085	12	1.1%
Training	272	266	6	2.1%	259	7	2.6%
Staff welfare	227	220	7	3.0%	229	(9)	(3.9%)
Other manpower costs	1,025	1,199	(174)	(14.5%)	673	526	78.1%
Manpower Cost Capitalised/charge out	(1,386)	(816)	(570)	69.9%	(1,219)	403	(33.1%)
<b>Total Manpower Costs</b>	<b>14,006</b>	<b>13,596</b>	<b>410</b>	<b>3.0%</b>	<b>13,605</b>	<b>(9)</b>	<b>(0.1%)</b>

#### Salaries

An overall salary increases of 4% is budgeted for FY2024/25 after taking into account promotions and salary adjustments aligned with market benchmark. In addition, lower

salary costs arising from manpower gaps due to attrition in FY2023/24 also contributed to the budget variance.

Towards July 2024, Management will consider the current market conditions and propose the actual 2024 salary increment percentage for approval.

#### Performance Bonus

The performance bonus policy is based on both company and individual staff performance. For FY2024/25, the performance bonus for the year is proposed at \$2.6 million.

#### Other Manpower Cost

Other manpower costs in FY2024/25 are expected to be lower than FY2023/24 forecast mainly due to lower contract staff cost, partially offset by higher medical insurance.

#### Manpower Cost Capitalisation/Charge Out

Budgeted costs for FY2024/25 are higher than the FY2023/24 forecast mainly due to resources supporting more capital projects in FY2024/25.

### 3.2.2.5 Depreciation & Amortisation

Depreciation in FY2024/25 decreased by \$972K over the FY2023/24 forecast mainly due to NEMSCAP (Demand Response, Compensation and Penalty) assets being fully depreciated in FY2024/25.

### 3.2.2.6 IT Service Costs

The total budget of IT Service Costs comprises the following:

	FY24/25 Budget \$'000	FY23/24 Forecast \$'000	Purpose
<b>Internal IT Opex</b>			
Internal Corporate System and Applications Maintenance	550	526	Support and maintain the corporate IT systems and applications.
<b>Subtotal</b>	<b>550</b>	<b>526</b>	
<b>NEMS Infrastructure Opex</b>			
Data Backup Services	10	10	Maintain timely backup of NEMS and corporate data to be stored offsite for purpose of data recovery base on business' needs
NEMS Network and Server Maintenance	836	704	Support and maintain the 24x7 critical NEMS network and server infrastructure.

	FY24/25 Budget \$'000	FY23/24 Forecast \$'000	Purpose
NEMS System Maintenance	1,040	1,048	Support and maintain the 24x7 critical NEMS systems
Managed Security Services Subscription	1,971	2,049	Subscribe to Managed Security Services to provide 24x7 IT security protection and 24x7 proactive security monitoring, alerts and remediation against IT security threats, for both NEMS and corporate systems
Monitoring Systems Maintenance	161	79	Maintain a 24x7 real time system monitoring systems for the NEMS and corporate services, and be able to proactively provide alerts to the IT teams for prompt resumption of normal business operations
Teleco Lease Lines - Subscription and Maintenance	211	240	Subscribe and maintain telecommunications lease lines for connectivity with the external network and Internet
Data Centres Facilities Maintenance	142	142	Maintain the secured and highly available data centres to house the NEMS and corporate systems.
<b>Subtotal</b>	<b>4,372</b>	<b>4,271</b>	
<b>NEMS Software / Application Opex</b>			
NEMS Software/Application maintenance	2,185	2,135	Support and maintenance on tools and 3 <sup>rd</sup> party software (solver software, database software and middleware)
<b>Subtotal</b>	<b>2,185</b>	<b>2,135</b>	
<b>IT Security</b>			
IT Security	354	295	Implementation of Content Disarm and Reconstruction (CDR) and additional vulnerability assessment and penetration tests.
<b>Subtotal</b>	<b>354</b>	<b>295</b>	
<b>Total</b>	<b>7,460</b>	<b>7,227</b>	



The overall FY2024/25 IT Service cost budget is higher than the FY2023/24 forecast by \$233K (3.2%). The key factors contributing to the variance are:

- Increase in NEMS Infrastructure and Application System maintenance by \$101K and \$50K respectively, mainly due to temporary licences for existing systems during the implementation of the database hardware refresh project and the NEMS secured website revamp; and
- Increase in IT Security by \$58K due to maintenance cost of CDR System.

#### **3.2.2.7 Office Maintenance/ Rental & Utilities**

The budget for FY2024/25 is \$226K higher than the FY2023/24 forecast to cater for the refresh of the office premises.

#### **3.2.2.8 Legal and Professional Fees**

The budgeted legal and professional fees in FY2024/25 are \$175K higher than FY2023/24 forecast mainly to cater for legal services relating to market rules changes and security audit conducted once every two years.

#### **3.2.2.9 Communications & Public Relations (PR)**

The Communications & PR budget for FY2024/25 is lower than FY2023/24 forecast as the cost incurred for the biennial Electricity Roundtable event and NEMS milestone celebration held in FY2023/24 will not be incurred in FY2024/25.

#### **3.2.2.10 Insurance Expenses**

EMC continues to prudently maintain insurance coverage for Professional Indemnity, Directors' and Officers' Liability, Industrial All Risks, Commercial General Liability and Cybersecurity insurance at similar rates as FY2023/24.

#### **3.2.2.11 Panel Fees & Expenses**

The FY2024/25 budgeted Panel Fees & Expenses is \$44K higher than FY2023/24 forecast due to the full year impact of the upward revision in the hourly rates paid to the panel members.

#### **3.2.2.12 Other operating expenses**

Other operating expenses for FY2024/25 are higher than the FY2023/24 forecast due to higher meeting expenses and lower cost allocated to New Business.

#### 4. NEMS CAPITAL EXPENDITURE

EMC's capital expenditure plans are as follows:

	Note	FY 24/25 Budget \$'000	FY 23/24 Forecast \$'000
Furniture Fittings, Equipment & Office Renovation	4.1	30	76
Internal (Corporate) and NEMS Systems	4.2	10,574	5,451
Provision for Rules Change Panel (RCP) Requests		-	177
EMA Directed Projects	4.3	1,312	294
<b>Total</b>		<b>11,916</b>	<b>5,998</b>

##### 4.1 Furniture Fittings, Equipment and Office Renovation

The budget for FY2024/25 is mainly for the replacement of office equipment and fixtures and fittings.

##### 4.2 Internal (Corporate) and NEMS Systems

In planning the list of Technology projects, EMC's key foci are:

- (a) Resiliency and Reliability  
Improve resiliency of NEMS architecture and infrastructure to ensure no single point of failure. Timely refresh of system (beyond useful hardware life) to prevent technology obsolescence and ensure supported versions of hardware and software are used;
- (b) Extensibility and Flexibility  
Ensure sufficient capacity and ability to support new market initiatives and capabilities;
- (c) Governance, Compliance and Security  
Implement controls and enhance IT Service Management processes to ensure governance and compliance. Enhance overall security posture and improve proactive security monitoring, detection, and protection capabilities to respond rapidly to security threats and vulnerabilities; and
- (d) Customer Satisfaction  
Enhance market participants' NEMS user experience and deliver more value-added services. Digitisation of manual processes and implement automation to improve market participants' interaction with the secure trading portal and ensure operations efficiency.

The following sections provide a breakdown of the capital initiatives for FY2024/25:

**Internal (Corporate) and NEMS Systems Capital Expenditure Budget**

Projects	Note	FY 24/25 Budget \$'000
Internal (Corporate) IT Systems	4.2.1	617
NEMS Systems	4.2.2 to 4.2.3	9,957
Total		10,574

**4.2.1 Internal (Corporate) IT Systems**

FY2024/25 Internal IT Systems CAPEX budget is for the replacement of ageing end user computing devices and peripherals, network technology refresh, replacement of ageing SAN storage and purchase of software licenses.

**4.2.2 NEMS Application Systems**

FY2024/25 NEMS Application Systems budget is for NEMS secure portal revamp, NEMS application refresh and enhancements, including market clearing engine enhancements.

**4.2.3 NEMS IT Infrastructure and IT Operation Systems**

The budget for FY2024/25 is for the upgrade of ageing NEMS infrastructure equipment and services comprising of NEMS secure portal hardware, Application Program Interface (API) Gateway hardware and software, network, servers, storage and ancillary support to fulfil stipulated NEMS availability requirements, as well as security related projects.

**4.3 EMA Directed Projects**

The EMA directed project budgeted in FY2024/25 is for the enhancement of user interfaces and the development of webservices for Temporary Price Cap and system changes for Residual Vesting Scheme.

## Appendix 1

### EMC's Obligations with Respect to Rules and Market Licence in Preparation of Budgets

Requirements	Action to be taken by
<p>Market Rules Chapter 2 sections 10.1.1.1 and 10.1.1.2</p> <p>No less than 100 days prior to the beginning of each fiscal year EMC is :</p> <p>To submit proposed expenditure and revenue requirements and a schedule of fees for the following fiscal year to the RCP for review; and</p> <p>Publish notice of its proposed expenditure and revenue and schedule of fees</p>	<p>22 March 2024</p>
<p>Market Rules Chapter 2 section 10.1.4</p> <p>The RCP shall submit a written report to the EMC Board indicating the views of the RCP and a summary of any material submissions from interested persons pursuant to Chapter 2 section 10.1.1.2</p> <p>Market Rules Chapter 2 Section 10.1.5</p> <p>The RCP report shall be submitted to the EMC Board no later than 75 days before the beginning of the new fiscal year</p>	<p>16 April 2024</p>
<p>Market Rules Chapter 2 section 11.1.1</p> <p>EMC shall no less than 60 days prior to the beginning of the fiscal year to submit to the EMA for the approval its proposed expenditure and revenue requirements and either:</p> <p>a schedule of fees or</p> <p>a statement of fee methodology</p>	<p>30 April 2024</p>
<p>Market Licence Condition 18</p> <p>"The Licensee shall, no less than 60 days before the beginning of the Licensee's fiscal year, submit to the Authority the Licensees proposed expenditure and revenue requirements for the following fiscal year to the Authority for review and approval ... in the manner and to the extent ... in the manner and to the extent, if any, required by the market rules."</p>	<p>30 April 2024</p>

## Appendix 2

### EMC's cost forecast broken down by service

	FY 24/25 Budget	FY 23/24 Forecast
Service	Fee \$'000	Fee \$'000
Systems	20,279	21,392
Pricing and information	3,665	3,168
Settlement/Ancillary Services	2,480	2,355
Market assessment	1,976	1,763
Rule change process	2,791	2,476
Market Licence	4,506	4,171
Panel Fees	317	275
<b>Total</b>	<b>36,013</b>	<b>35,600</b>
<b>Individual fees to Market Participants</b>	Est. fee (\$)	Est. fee (\$)
Common services (all those listed above)	<b>36.86 cents</b>	<b>37.03 cents</b>
Impact assessed on Market Participant and Market Support Services Licensees as a class EMC fee / average actual YTD January 2024 USEP	0.22%	0.22%
Average actual July 2023 to January 2024 USEP	\$168	\$168