MINUTES OF THE RULES CHANGE PANEL
108TH MEETING
HELD ON TUESDAY, 2 APRIL 2019 AT 10.00AM
AT ENERGY MARKET CO. PTE LTD
4 SHENTON WAY #03-01
SGX CENTRE 2, SINGAPORE 068807

Present:
Toh Seong Wah (Chairman)
Tony Tan
Sean Chan
Fong Yeng Keong
Henry Gan
Daniel Au
Matthew Yeo
Tan Chian Khong

Absent with:
Soh Yap Choon
Teo Chin Hau

Apologies:
Carol Tan
Ho Yin Shan
Dr. Toh Mun Heng

In Attendance:
Veronica Rodriguez
Lau Chee Kiong, SVP Technology
Anne Goh, VP Finance

(EMC)

1. Notice of Meeting

The Chairman called the meeting to order at 10.05am. The Notice and Agenda of the meeting were taken as read.

2. EMC’s Budget for FY2019/20
(Paper No. EMC/RCP/108/2019/01)

Mr. Toh Seong Wah, Chairman of the RCP, and Mr. Henry Gan declared conflict of interests in the discussion on EMC’s Budget and thus would not take part directly in the discussion except to answer any questions directed to them.

The Panel was informed that under the Market Rules and EMC’s Market Licence, EMC is obliged to consult the Panel on its Budget prior to submitting the same to the EMC Board and EMA for approval.

Ms Anne Goh, EMC’s Vice President of Finance, presented the Budget for FY2019/20.

2.1 Key Assumption for the Budget

1. NEMS revenue is based on the allowed revenue under the economic regulation framework for 1 April 2018 to 30 June 2023.

2. EMC is allowed to charge the following categories of fixed fees:
   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 6th token onwards per MP) of $350 per token

The fixed fees were introduced to ensure a more equitable cost allocation among participants in NEMS and does not increase EMC’s overall revenue.
3. The price cap and volume assumptions are as follows:

<table>
<thead>
<tr>
<th>Price Cap (Cents/MWh)</th>
<th>Forecast FY2018/19</th>
<th>Budget FY2019/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 July to 30 June</td>
<td>30.16</td>
<td>32.28</td>
</tr>
</tbody>
</table>

4. NEMS expenses are supported by specific functions, initiatives and projects.

5. Payroll budget includes overall 5.0% salary increase (taking into account salary increment and promotion) and performance bonus of $2.0M. Although the approved headcount for NEMS is 69, the manpower cost was budgeted based on 73 headcount which included 4 additional headcount for Information Security.

6. EMA market licence fees increase by 8% year-on-year

7. Depreciation is based on EMC’s depreciation policies of 3 – 5 years useful life

8. NEMS capital expenditure is largely based on the projects approved in the regulatory period by EMA and the key focus are:
   a) Resiliency and redundancy
   b) Reliability and supportability
   c) Governance and compliance
   d) Security
   e) Capacity management

2.2 Mr. Sean Chan noted that Ernst & Young recommended that EMC define a cybersecurity team with minimally 5 personnel to support the daily function of cybersecurity. He asked for the basis of the recommendations and if the existing personnel can cover the said roles. Mr. Y K Fong asked if the proposed number of personnel is industry specific. Mr. Lau Chee Kiong replied that Ernst & Young has assessed EMC’s operational needs and security requirements. Ernst & Young recommended a security structure comprising a head of security, 2 sub-teams with 2 staff each for security operations, and security engineering and compliance functions as a minimum start state for EMC. This also follows the National Institute of Standards and Technology recommendations in terms of segregation of duties, functions and responsibilities. The Chairman added that due to conflict of interest as security is a control function, it is not recommended for operations staff to also cover security functions.

2.2.1 Mr. Y K Fong queried if EMC has considered outsourcing some of the cybersecurity work instead of hiring all of 5 personnel. The Chairman explained that it has outsourced certain work like security analyst and security command centre. However, functions such as policy and governance cannot be outsourced. The additional 5 personnel were based on Ernst & Young’s assessment on EMC workload and volume. The total number of people involved in EMC’s security, including vendors, is more than the 5 personnel recommended by Ernst & Young.
2.2.2 Mr. Sean Chan asked if there is any synergy with the SGX security team. The Chairman replied that EMC has explored the option of leveraging on SGX. However, the SGX security requirements prescribed by MAS is different from the level of security that EMA has prescribed to EMC. It will incur higher costs to the market if EMC is to harmonise with MAS’ standard. EMC felt that it is not necessary to overburden the market with the security compliance costs.

2.3 Mr. Tan Chian Khong queried if EMC has a policy or formula for calculating surplus. Ms Anne Goh replied that EMA allowed EMC to recover a reasonable rate of return based on EMC’s cost base and the quantum is decided by EMA. Under this said regime, EMC is allowed to keep certain surplus and will have to return the excess to the market in the form of adjustment to the price cap in the next financial year.

2.4 Mr. Tan Chian Khong said that EMA has support from GovTech and asked if EMC can tap on the same support. The Chairman responded no as EMC is a separate entity from EMA.

Mr. Tan went on to ask if there is a separation of internet from the market system. The Chairman replied that EMC’s market system and connection to the market participants is through the internet and so, is unable to separate from the internet. Therefore, EMC’s budget is to cater for acquisition of improved security capabilities to deal with evolving security threats from the Internet.

2.5 Mr. Tan Chian Khong noted that EMC is claiming the cost of 9 staff filled during FY2018/19 exogenously and asked if the said cost will be made part of the substantive costs going forward. The Chairman explained that initially, EMC put up a request to EMA for 69 permanent staff for the first to fifth year under the new regime. However, EMA felt that EMC may not be able to hire the additional 9 staff within the year and thus only approved a budget for 60 staff for the first year and 69 staff from the second year onwards. EMA also allowed EMC to claim exogenously if EMC can hire the additional 9 staff within the financial year. It was noted that the FY2019/20 budget was based on the approved permanent staff headcount of 69.

2.6 The Chairman informed that the RCP Report on EMC’s budget for FY2019/20 will be circulated to the Panel for confirmation before issuing the same to the EMC Board and EMA.

There being no other matters, the meeting ended at 10.27am.

Toh Seong Wah
Chairman

Minutes taken by:
Angeline Tan
Corporate Secretarial Executive