MINUTES OF THE RULES CHANGE PANEL
86th MEETING
HELD ON TUESDAY, 5 APRIL 2016 AT 10.00AM
AT ENERGY MARKET CO. PTE LTD
4 SHENTON WAY #03-01
SGX CENTRE 2, SINGAPORE 068807

Present: Paul Poh (Chairman) Priscilla Chua
Lawrence Lee Soh Yap Choon
Daniel Lee Grace Chiam
Dallon Kay Luke Peacocke
Phillip Tan Frances Chang
Lim Han Kwang Henry Gan
Marcus Tan Sean Chan

Absent with apologies: Dr. Toh Mun Heng

In Attendance: Toh Seong Wah, CEO
(EMC) Tan Phaik Kim, CFO
Anne Goh, VP (Finance)

1.0 Notice of Meeting

The Chairman called the meeting to order at 10.00am. The Notice and Agenda of the meeting were taken as read.

2.0 EMC’s Proposed Budget for FY2016/17
(Paper No. EMC/RCP/86/2016/01)

Mr. Paul Poh, Chairman of the RCP and Mr. Henry Gan informed the Panel that they declared conflict of interests in the discussion on EMC’s Proposed 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 was obliged to consult the Rules Change Panel on its Proposed Budget prior to submitting to the EMC Board for consideration and subsequently to the EMA for approval.

Ms. Tan Phaik Kim, EMC’s Chief Financial Officer (“CFO”) presented the Budget for FY2016/17.
4.1 Key Assumptions for the Budget

1. Based on the Price Cap Revenue Regime for FY13/14 to FY17/18 (ending March 2018) and which was adjusted down 2% from November 2014.
2. Admin Fee was calculated based on 2.4% volume growth over FY15/16 forecast of 2.3% growth.
3. Budgeted expenses supported by specific functions, initiatives and projects. Industry consultations used as input to setting company priorities.
4. 88% of its Opex (excluding depreciation and license fees) was made up of 3 key items:
   5. Payroll & related – 57%
   6. IT System costs – 19%
   7. Premises costs – 12%
8. Payroll budget includes salary increment of 5% and PB of $1.29M. It also includes additional 3 headcounts to support Demand Response.
9. EMC Office assumed to be located at SGX Center for the projection years.
10. Depreciation was based on EMC’s depreciation policies. Depreciation on software starts when the application goes live and is depreciated over 3 years and 5 years depreciation for server.

4.2 Revenue

Ms. Tan informed that with the new financial year and the fact that price cap changes remain from 1 April to 31 March, EMC’s financial year, the revenues are calculated based on the rates of 2 price caps. For FY16/17, the first 9 months will be 25.30 cents and from 1 April to 30 June will be 24.50 cents.
4.3 FY16/17 Financial Budget

<table>
<thead>
<tr>
<th>Description</th>
<th>FY16/17 Budget</th>
<th>FY15/16 Forecast</th>
<th>Incr/(dcr)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEMS Revenue</strong></td>
<td>S$'000</td>
<td>S$'000</td>
<td>%</td>
</tr>
<tr>
<td>NEMS Administrator's Fee</td>
<td>23,984</td>
<td>24,210</td>
<td>(226) (0.9%)</td>
</tr>
<tr>
<td>Exogenous Item</td>
<td>757</td>
<td>462</td>
<td>296 64.0%</td>
</tr>
<tr>
<td>Depreciation Adjustment</td>
<td>680</td>
<td>454</td>
<td>226 49.7%</td>
</tr>
<tr>
<td>Total NEMS Revenue</td>
<td>25,421</td>
<td>25,126</td>
<td>296 1.2%</td>
</tr>
<tr>
<td>Manpower</td>
<td>8,840</td>
<td>8,229</td>
<td>610 7.4%</td>
</tr>
<tr>
<td>Other Operational Expenses</td>
<td>14,706</td>
<td>14,744</td>
<td>(38) (0.3%)</td>
</tr>
<tr>
<td>Total NEMS Expenses</td>
<td>23,545</td>
<td>22,974</td>
<td>572 2.5%</td>
</tr>
<tr>
<td>NEMS Operating Profit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(before interest and tax)</td>
<td>1,876</td>
<td>2,152</td>
<td>(276) (12.8%)</td>
</tr>
</tbody>
</table>

The NEMS Administrator’s Fee was based on gross volume growth of 2.4% over FY15/16. It was lower because of the lower fee rates that are being applied.

Exogenous item was higher because some of the costs related to Demand Response such as licensing cost and costs for 3 headcounts for Demand Response. They were not part of the manpower plans when the price cap was being determined.

Depreciation adjustment higher because of a full-year’s depreciation for DRCAP.

Other operational costs will be kept flat for FY16/17 despite higher depreciation.

4.3.1 Mr. Phillip Tan noted that there was a large difference between budgeted exogenous items and the forecast. He asked if EMC will be doing another large EMA directed project.

4.3.1.1 The CFO explained that exogenous items include costs related to Demand Response where some legal fees are incurred as EMA had required external legal review. Exogenous items are not normally budgeted and will be claimed from the market, depending on the amount approved by EMA which may differ from what was put up for approval.
4.3.2 About the DRCAP project, Mr. Luke Peacocke asked if EMC had considered starting depreciation when the DRCAP system starts being used as opposed to when going live. He said that there was no economic benefit until the point that the system is used.

4.3.2.1 The CFO said that EMC has been following the normal policy that when any system goes live, EMC would have to start to depreciate it. EMC cannot wait for actual transaction to be put through as it would also be a financial burden on EMC because EMC has been carrying the cost of the DRCAP development. The Panel was informed that the go-live date of DRCAP will be 28 April 2016.

4.4 The CFO provided the detailed breakdown of operating expenses.

4.4.1 Mr. Phillip Tan noted that Panel fees have increased. The CFO said that Panel fees are normally budgeted based on the number of hours the Market Surveillance & Compliance Panel may incur for meetings.

4.5 Capital Expenditure

EMC does not expect to see any major projects in FY16/17. However, in the FY17/18 and FY18/19, there will be projects to replace the NEMS server and upgrade of the network and security the following year. Such replacements are necessary and follow a 5 years cycle.

4.5.1 Mr. Peacocke noted that EMC’s strategy is stated to use existing technology for development of new non-regulated business initiatives. He asked how the costs between non-regulated and regulated will be appropriately split if EMC is successful in implementing this strategy.

4.5.1.1 The CFO replied that EMC does not expect to use a large part of the NEMS system for non-regulated business and it is probably marginal. EMC is in discussion with EMA on the methodology on how the charge out will be done.

4.5.1.1 In reply to Mr. Sean Chan’s question on replacement of servers, networks and security, the CEO said that servers are replaced every 5 years when they are fully depreciated. In FY17/18 the hardware for the NEMS server will be replaced and in FY18/19, EMC will replace the NEMS network and security. This is much in-tune with the useful life of the equipment.

4.6 Mr. Marcus Tan queried details of the $2.546m capital expenditure under Provision for RCP Requests in FY15/16 which was significantly higher than $500K budgeted in current year and projected in the future. The CFO replied that it was mainly due to DRCAP project which consist of the MSL component supported by the RCP and the APS and DR components directed by EMA.
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4.7 Operating Expenses

4.7.1 Mr. Peacocke noted that EMC has provisioned for 3 headcount of staff for the DRCAP. He asked whether the staff will start when the projects goes live. Mr. Henry Gan explained that 1 of the 3 headcounts will be IT and required to support the system. The other 2 headcounts in operations are also required as EMC now has more obligations under Demand Response to discharge.

4.7.2 Mr. Peacocke also noted that the NEMS Operating Profit would be $1.87m and it was based on the 2.4% gross volume forecast. He asked what would be the impact of a 1.0% movement in volumes. The CFO said that a 1% delta will be about $250k difference in the admin fee.

4.8 NEMS MCE/Software Application Opex

Mr. Daniel Lee said that the NEMS MCE Support and Maintenance showed that the Forecast FY15/16 amount was $527k and the Budget FY16/17 amount was $142k. He noted that the drop in MCE support cost was due to reduction in consultants and asked for confirmation that this was being done after EMC had transferred the skills to their in-house staff. The CEO confirmed that there was an in-house team to support the MCE maintenance.

4.9 Historical actual EMC fees

4.9.1 Mr. Daniel Lee pointed out that when comparing the EMC Admin Fees calculation for Real Admin Fees with Nominal Admin fees for FY2012/13 (actual) and FY2013/14 (actual), an inflation rate of more than 10% was implied which could not be correct and therefore the numbers for Real EMC Admin Fees calculation and therefore also Real S$ Cents/MWh would need to be checked. EMC was requested to relook the real EMC Admin Fees calculation and Real S$ Cents/MWh, as well as to include the reference year in the table.

4.9.1.1 The CFO said that EMC will revisit the table and make the necessary adjustments and will respond to the Panel accordingly.

4.10 Mr. Peacocke pointed out that there was a duplicate paragraph on page 5 of the document. The CFO said that this will be corrected.
4.11 Mr. Dallon Kay asked where the Regulator’s forecast was sourced from and whether it has been updated. The CFO responded that the forecast was set when the volumes were assumed in 2012 and that forecast remains unchanged. Mr. Daniel Lee shared that EMA’s forecast was set at 2.3% to 2.4% for the next 5 EMA Financial Years ago as per the information on budgeting of PSO fees found on EMA’s website.

4.11.1 The CEO clarified that the Regulator’s forecast was set in 2012 and forms the basis for EMC’s Price Cap. EMC’s projection was how the market was actually performing. The delta was the shortfall in EMC fees.

4.11.2 Mr. Kay enquired if EMC was looking at some probabilistic forecasting of the volume growth. The CFO explained that EMC has been using historical data to forecast. However with the changes in the market, historical data may not be a good guide to future growth.

4.12 Mr. Lim Han Kwang requested EMC to quantify the impact of the budgeted exogenous items and depreciation adjustments on the EMC admin fee.

4.12.1 The CFO said that the exogenous items and depreciation adjustment budgeted would be subjected to EMA’s approval. In addition, new exogenous items may be incurred due to new developments in the year. There would be a one year delay in collecting the exogenous and depreciation adjustments.

4.13 Comments received from the Panel:

1. The Panel queried the usage of NEMS resources for non-regulated activities and how the cost will be split appropriately. EMC responded that the use of NEMS resources will probably be marginal and EMC is currently in discussion with EMA on the charge-out methodology.

2. The Panel queried whether the hiring of the 3 additional headcounts to support Demand Response (DR) could be delayed until actual DR transactions commenced rather than when the system goes live. EMC responded that the 3 staff have to be ready when the system goes live as there are obligations placed on EMC by the market rules which must be met. One of the headcount will support the IT system. EMC confirmed that the resources have been scoped to cater for some level of uptake in activities.

3. The Panel requested EMC to relook the Real EMC Admin Fees calculation and Real S$ Cents/MWh in the table on Page 16 and to include the reference year in the table. EMC agreed and will replace the table if necessary.
4. The Panel requested EMC to quantify the impact of the budgeted exogenous items and depreciation adjustments on the EMC admin fee. EMC clarified that the exogenous items and depreciation adjustment budgeted are subjected to EMA’s approval and are just estimates. In addition, new exogenous items may be incurred due to new EMA directives in the year.

4.14 EMC stated that it would circulate the RCP Report on EMC’s Budget for FY2016/17 to the Panel for confirmation before issuing to the EMC Board and EMA.

5.0 Any Other Business

5.1 Ms. Eunice Koh informed the Panel that she will retire from EMC on 30th April 2016. She bade farewell to all members.

5.1.1 The Chairman commented that Ms. Koh has been working with the Panel since 2002. The Panel wished her a well-deserved retirement and thanked her for her contributions and services to the Panel.

5.2 Ms. Frances Chang also informed the Panel that she has resigned as a Panel member.

5.2.1 The Panel also thanked Ms. Chang for her contributions to the Rules Change Panel and wished her well in her new endeavours.

6.0 Date of Next Meeting

The 87th RCP Meeting will be held on Tuesday, 10 May 2016.

There being no other matters, the meeting ended at 10.45am.

Paul Poh
Chairman

Minutes taken by:
Eunice Koh
Sr. Executive, Corporate Secretariat

Approved at the 87th RCP meeting held on 10 May 2016