Notice of Market Rules Modification

Paper No.:	EMC/RCP/45/2009/285
Rule reference:	Chapter 2 Sections 7.6.2, 7.6.7
Proposer:	Energy Market Company
Date received by EMC:	11 March 2009
Category allocated:	1
Status:	Not Adopted By Board
Effective Date:	NA

Summary of Proposed Rule Modification:

To manage credit risks in the Singapore Wholesale Electricity Market, Market Participants (MPs) are required to put up credit support for their potential trading exposure. Under existing rules, the acceptable forms of credit support include:

i) Banker's Guarantees issued by financial institutions rated "A" or better by Standard & Poor
ii) Cash Deposits
iii) Singapore Government Treasury Bills

Currently, all credit support held by EMC is in the form of Banker's Guarantees (BGs), which leads to concentration risks when BGs are drawn from the SWEM Clearing Bank. If the clearing bank (currently OCBC) defaults, the funds in the SWEM settlement accounts could be frozen and EMC would be unable to draw upon Banker's Guarantees issued from the same clearing bank, should a Market Participant default. To diversify this risk, EMC proposes to disqualify BGs drawn from the clearing bank.

At the 45th RCP meeting, SP Services updated the Panel that disqualifying OCBC will result in it having to secure more expensive BGs from other banks. This increases its cost by $500,000 or more, which will be passed on to consumers.

The RCP noted that the benefits of the proposal are minimal; the diversification achievable is relatively limited (estimated $15.38 million) when in contrast, the largest concentration risk stems from SP Services drawing its whole BG amount from the same bank ($200 million from OCBC, or about 80% by value of all BGs held by EMC). In addition, the risk manifests only if both the issuing bank <u>and</u> the retailer/MSSL default, which is unlikely. Also, EMC only accepts BGs from banks with an S&P rating of "A" and above.

Given the significant costs and minimal benefits, the RCP decided <u>not to support</u> the proposal to disqualify BGs drawn from the clearing bank. The Panel decided instead to closely monitor the BG concentration and financial health of the BG-issuing banks.

Date considered by Rules Change Panel:	08 September 2009
Date considered by EMC Board:	24 September 2009
Date considered by Energy Market Authority:	

Proposed rule modification:

See attached paper.

Reasons for rejection/referral back to Rules Change Panel (if applicable):

PAPER NO.	:	**EMC/BD/05/2009/**
RCP PAPER NO.	:	**EMC/RCP/44/2009/285**
SUBJECT	:	**DISQUALIFICATION OF BANKER'S GUARANTEES ISSUED BY THE SWEM CLEARING BANK AS CREDIT SUPPORT**
FOR	:	**DECISION**
PREPARED BY	:	**TAN LIANG CHING** **SENIOR ECONOMIST, MARKET ADMINISTRATION**
REVIEWED BY	:	**PAUL POH** **SVP, MARKET ADMINISTRATION**
DATE OF MEETING	:	24 **SEPT 2009**

Executive Summary

To manage credit risks in the Singapore Wholesale Electricity Market, Market Participants (MPs) are required to put up credit support for their potential trading exposure. Under existing rules, the acceptable forms of credit support include:

i) Banker's Guarantees issued by financial institutions rated "A" or better by Standard & Poor
ii) Cash Deposits
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Currently, all credit support held by EMC is in the form of Banker's Guarantees (BGs), which leads to concentration risks when BGs are drawn from the SWEM Clearing Bank. If the clearing bank (currently OCBC) defaults, the funds in the SWEM settlement accounts could be frozen and EMC would be unable to draw upon Banker's Guarantees issued from the same clearing bank, should a Market Participant default. To diversify this risk, <u>EMC proposes to disqualify BGs drawn from the clearing bank.</u>

At the 45th RCP meeting, SP Services updated the Panel that disqualifying OCBC will result in it having to secure more expensive BGs from other banks. This increases its cost by $500,000 or more, which will be passed on to consumers.

The RCP noted that the benefits of the proposal are minimal; the diversification achievable is relatively limited (estimated $15.38 million) when in contrast, the largest concentration risk stems from SP Services drawing its whole BG amount from the same bank ($200 million from OCBC, or about 80% by value of all BGs held by EMC). In addition, the risk manifests only if both the issuing bank <u>and</u> the retailer/MSSL default, which is unlikely. Also, EMC only accepts BGs from banks with an S&P rating of "A" and above.

Given the significant costs and minimal benefits, the RCP decided <u>not to support</u> the proposal to disqualify BGs drawn from the clearing bank. The Panel decided instead to closely monitor the BG concentration and ratings of the BG-issuing banks.

1. INTRODUCTION

This paper analyzes the proposal to require that Banker's Guarantees (BGs) from Market Participants are not drawn from the Singapore Wholesale Electricity Market (SWEM clearing bank, so as to manage possible concentration risk in the event of a clearing bank failure.

2. BACKGROUND

To manage credit risks in the Singapore Wholesale Electricity Market, Market Participants (MP) are required to put up credit support for their potential trading exposure. Under existing rules[1], the acceptable forms of credit support include:

i) Banker's Guarantees issued by financial institutions rated "A" or better by Standard & Poor

ii) Cash Deposits

iii) Singapore Government Treasury Bills

In the event of a default by a debtor MP, the monies received from the realization of the Banker's Guarantee, cash or Treasury Bills shall be applied by EMC to offset any of the MP's financial liabilities, to any part and in any order as EMC deems appropriate.

Also, under Chapter 7, Section 5.16.2 of the Market Rules, EMC is required to maintain its bank accounts at a single SWEM clearing bank approved by the EMC Board, which is currently OCBC[2]. Each market participant is required to open and maintain a bank account with this clearing bank, and authorize EMC to direct debit the said bank account to facilitate clearing and settlement in the wholesale market. The clearing bank will then be instructed to credit or debit the market participant's bank account against EMC's market account, for the relevant dollar amount on the payment date.

3. ANALYSIS

3.1 Existing Financial Risks

MAS' Guidelines on Risk Management Practices[3] state that an institution should monitor credit risk on a portfolio basis to manage concentration risk, which could arise when credit granted to a single borrower or group of connected borrowers accounts for a substantial proportion of the institution's total credit portfolio or capital funds. An institution should establish appropriate limits to cap concentration risk at an acceptable level.

Extrapolating this idea of concentration risk to the SWEM, even though individual risks are managed using credit support, concentration risks still exist when BGs are drawn from the SWEM Clearing Bank. In the event of a default by the clearing bank (currently OCBC), the funds in the SWEM settlement accounts could be frozen. In addition, EMC would be unable to draw upon Banker's Guarantees issued from the same clearing bank, should a Market Participant default.

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[1] As stated in the Market Rules Chapter 2, Section 7.2.6 and the Market Manual (Market Operations – Settlement).

[2] OCBC replaced Citibank as the SWEM clearing bank with effect from 26 June 2009.

[3] MAS Guidelines on Risk Management Practices – Credit Risk, Feb 2006, http://www.mas.gov.sg/resource/legislation_guidelines/risk_mgt/4-CreditRisk.pdf

The concentration risks arising from BGs will lead to realized financial losses in the SWEM <u>only if both the debtor MP and the BG-issuing bank default</u>. For example, if only the debtor MP defaults, EMC can recover the sum through the BG-issuing bank. Conversely, if only the BG-issuing bank collapses, the debtor MP can reissue new collateral (e.g. BG from another bank). Notwithstanding, this risk concentration does indeed increase the potential for losses in the event that both defaults simultaneously occur, and should be ameliorated where the additional effort required is minimal.

3.2 Analysis of Mitigating Measures

BGs Drawn from the SWEM Clearing Bank

In order to diversify the concentration risk, we can disqualify Banker's Guarantees issued by the SWEM clearing bank from being used as credit support. This implies that BGs issued by OCBC will be disqualified, and MPs have to source for BGs from other banks. To assess if this measure is justified, we first consider the daily balance in the Clearing Bank, together with the amount of BGs held by it.

<u>Figure 1: Daily Balance in Clearing Bank Account, Jan 08 to May 09, in Ascending Order</u>

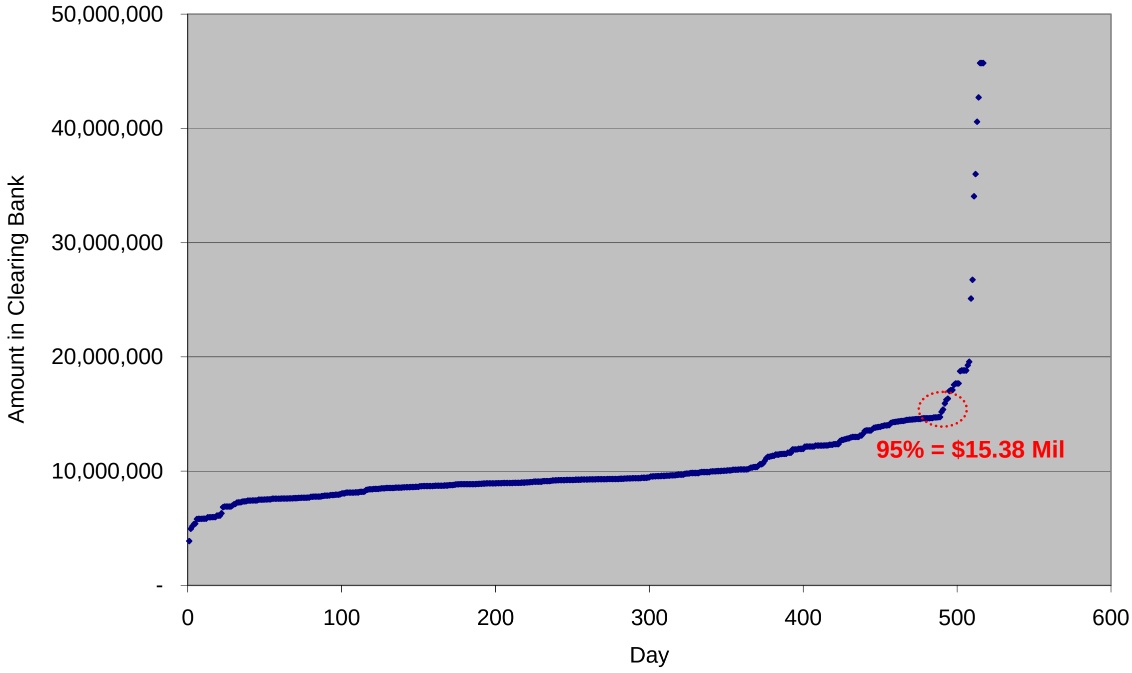

Figure 1 above shows the daily clearing bank balance, which will be the amount at risk should the clearing bank fail. The balance varies mostly between $7-12 million, with the sharp spike to $30-40 million arising from increased pre-payments in early May 2009. Based on a 95% Value-At-Risk analysis, the clearing bank balance would be $15.38 million.

Figure 2: Risk Concentration Before and After Implementation of Proposal

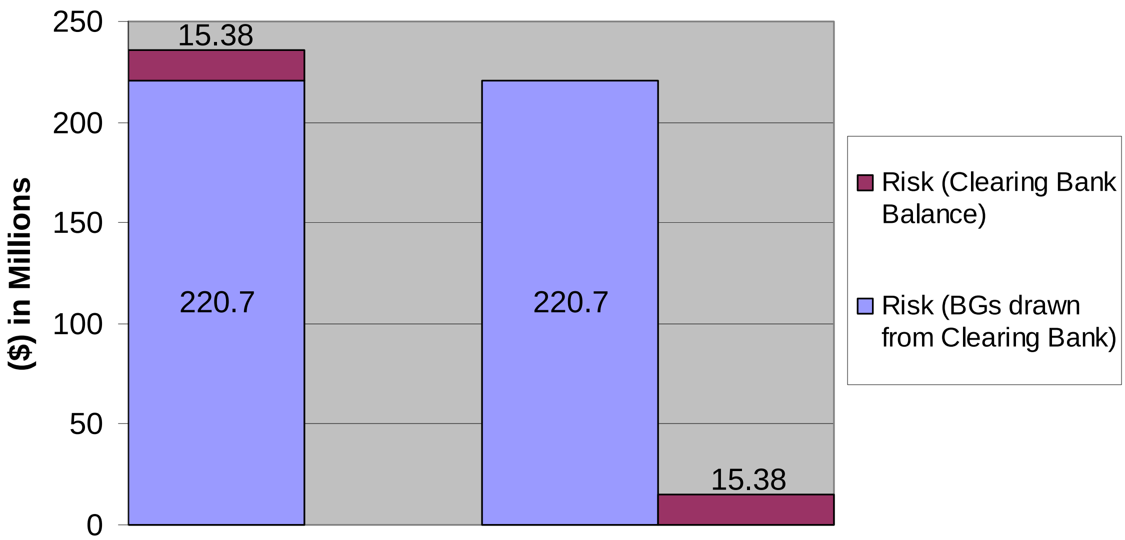

Figure 2 above shows the risk concentration before and after the implementation of the proposal. Currently, $220.7 million of BGs are drawn from OCBC[4] which, in addition to the $15.38 million in the clearing bank account, leads to a total risk exposure of $236.1 million. With the implementation of the proposal to disqualify BGs drawn from OCBC, this will lead to a diversification of risks, reducing the risk exposure back to $220.7 million[5]. Although this level of diversification seems minimal (from $236.1 million to $220.7 million, or 6.5%), it is justifiable as part of good risk management practices.

All BGs issued by OCBC will expire by the end of 2009. If the change were implemented immediately, MPs would have to scramble to establish banking relationships with other banks, and forfeit the unused portion of their BGs since the bank will not issue a refund for the unused portion of the BGs. An alternative would be to implement the change on 01 January 2010, which would give MPs adequate lead time to source for BGs, and without wasting any of the unused portions of their current BGs.

The disqualification of BGs from OCBC as the settlement clearing bank would require MPs to establish banking relationships and lines of credit with other banks. As we do not envision the change in clearing bank on a frequent basis, the associated costs of doing so should be once-off and lead to a diversification of risks in the long run. On balance, EMC assess the costs to be justified, and hence propose to disqualify BGs issued by the SWEM clearing bank from being used as credit support, with effect from 01 January 2010.

The proposed market manual changes to implement the disqualification of BGs issued by the SWEM clearing bank is given in **Annex 1**.

[4] Data as of 22 June 2009.
[5] This figure is an approximation, because it depends on which banks that the MPs secure their BGs from after their OCBC BGs are disqualified; it could be higher if they all shift over to a bank which is already issuing BGs to other MPs, or lower if these MPs secure their new BGs from a few different banks, leading to further diversification.

4. INDUSTRY COMMENTS

EMC published the modification proposal to disqualify BGs issued by the SWEM clearing bank from being used as credit support on 17 March 09, and received comments from SP Services and Power Seraya. The following section lists their comments and EMC's responses. The comments from SP Services quoted here are an extract of their full comments, which can be found in **Annex 2**. The comments from Power Seraya quoted here are complete.

1A) SP Services: At present, SP Services obtained its BG from OCBC Bank and had fully paid the costs of the S$200M BG for year 2009 at the cost of approximately $0.96M. OCBC has confirmed that no refund for unused premium will be granted if SP Services were to cancel the existing BG. With the appointment of OCBC Bank as the SWEM Clearing Bank by EMC and if the proposed rule change is implemented, SP Services' BG issued by OCBC will be made invalid.

Consequently, SP Services will need to obtain new BG from another banks rated "A" or better by Standard & Poor's (S&P) to replace the existing BGs issued by OCBC at a much higher rate at the current financial outlook. Hence, it is not equitable for EMC to benefit from the change and unilaterally transfer the cost and risk to SP Services. The additional costs of obtaining the BG will have to be borne by consumers through higher MSS fees in the tariff.

1B) Power Seraya: We understand that OCBC is to be the new SWEM Clearing Bank so the implementation should be after the expiry of current Banker's Guarantees (BGs) issued by OCBC as Credit Support. As OCBC has been selected as the new SWEM Clearing Bank, it would have been due to it being considered to be financially robust enough and thus should not be expected to deteriorate drastically before the expiry of the current BGs issued by it as Credit Support. Therefore it should be acceptable to delay the implementation till the expiry of the BGs issued by OCBC. This would enable a smooth transition at minimal cost. If it is decided to implement before the expiry, EMC should negotiate with OCBC to refund a pro-rated portion of the BGs with OCBC that would be terminated due to the use of those BGs becoming disqualified. In addition, any losses borne by market participants (and possibly MSSL) as a result of early termination due to disqualification should be recovered from the wholesale electricity market. This can be recovered through MEUC (the MISC component looks suitable). Costs imposed by changes in the wholesale electricity market should be recognised in the wholesale electricity market.

With the postponement of the proposal's implementation to 01 January 2010, SP Services and other MPs will not have to forgo any unused portion of their existing BG.

2) SP Services: The propose change will have an adverse effect on SP Services and other market participants as it could have the potential of reducing the available number of banks to compete for the issue of BG.

Foreign banks will not be able to issue the large sum of Singapore dollar BG due to their limited Singapore dollar facility. SP Services, being the biggest retailer in the wholesale electricity market, requires BG of approximately $200M – S$350M depending on the price of electricity. Hence, the available choices of banks for SP Services will be limited to only two local banks, i.e DBS or UOB. This situation will significantly weaken competition in the market, and hence resulting in higher cost of obtaining the BG.

We have checked with Citibank, and they replied that they do not have any difficulties in issuing BGs of approximately $200M to $350M. SP Services could consider establishing banking relationships with various foreign banks, which could help to bring down the cost of their BGs.

3) SP Services: Disqualifying BG issues by SWEM clearing bank means concentration of risks among the remaining banks.

If all BGs issued by OCBC are to be disqualified, SP Services and other MPs such as Power Seraya and Senoko Power may need to obtain the new BGs from the other banks rated 'A' or better. Most likely, they would obtain their BGs from one of the two local banks since PowerSeraya and Senoko Power, being the two of the largest retailers, may require high Singapore Dollar BG. Foreign banks may not be able to issue such BGs to the retailers.

This will lead to higher concentration of risks and greater degree of dependence in the remaining two local banks, and thereby affecting market vulnerability. Furthermore, SP Services as well as the other market participants have other use of banking facilities and would have its own considerations in managing its own risk exposure with the banks. By limiting the choice of banks for BG issued to EMC, this poses further administrative constraints and risks to the market participants.

As addressed in the earlier point, foreign banks do have the capacity to issue Singapore dollar denominated BGs. And in any case, some of the BGs for other MPs are drawn on HSBC and Maybank, so there is no concern of concentration of risks in only the two local banks.

While we acknowledge that this change would lead to additional effort on the part of MPs, this will be a once-off cost in shifting their banks, which is justified to enhance diversification to manage the concentration risk for the market.

4) SP Services: Disqualifying BG issues by SWEM clearing bank means longer negotiation time for obtaining the BG

It would take much longer time for SP Services to obtain new BG from another local bank. Internally, SPS has to perform financial due diligence and at the same time thoroughly review the following legal documents before the issuance of the BG.

- *the Bank's Standard Terms and Conditions,*
- *the Agreement and Indemnity*
- *Board resolution and others requested by the bank as conditions precedent*

The above due diligence is time-consuming and painstaking process since significant involvement of parent company is needed prior to obtaining the BG given the large sum involved.

Hence, it is not practical to implement the proposed rule change in 2009. Sufficient time must be given to SP Services and the other Market Participants to obtain new BG from another bank. The earliest possible time for implementation should be in 2010.

We agree with the comment, and thus proposed an implementation date of 01 January 2010.

5. CONCLUSION

This paper assesses the concentration risks in the SWEM, stemming from BGs drawn from the SWEM settlement clearing bank. Weighing the diversification benefits with the practical concerns of costs and effort involved, EMC proposes to disqualify BGs drawn from the SWEM settlement clearing bank from being used as credit support. To prevent MPs from forgoing their current BGs drawn from OCBC and facilitate their securing of BGs from other banks, the change is proposed to be implemented only on 01 January 2010.

6. LEGAL SIGNOFF

The text of the market manual modification has been vetted by EMC's legal counsel to reflect the intent of the modification proposal.

7. RECOMMENDATION

EMC recommends that the RCP:

a) **support** the modification proposal as set out in **Annex 1**;

b) **recommend** that the EMC Board **adopt** the modification proposal; and

c) **recommend** that the modification proposal come into force on **01 January 2010**, after the approval of the Authority.

8. DISCUSSION BY THE RCP

At the 44th RCP meeting, Mr. Lawrence Lee from SP Services commented that although EMC stated that Citibank could provide BGs denominated in Singapore dollars, SP Services could not previously obtain any quotes from Citibank and some of the other foreign banks. Mr. Lee informed that MSSL do not support the proposed rule change, in view of the higher costs that will be incurred.

Mr. Robin Langdale said that to transfer BGs from OCBC to other foreign banks would increase the risks as local banks are more well capitalised than foreign banks, and there are limited foreign banks that could offer BGs in Singapore dollars. The Panel requested for SP Services to seek indicative quotes from other foreign and local banks, and revert to the Panel for discussion at the next meeting.

At the 45th RCP meeting, SP Services updated the Panel that disqualifying OCBC will result in it having to secure more expensive BGs from other banks. This increases its cost by $500,000 or more, which will be passed on to consumers.

The RCP noted that the benefits of the proposal are minimal; the diversification achievable is relatively limited (estimated $15.38 million) when in contrast, the largest concentration risk stems from SP Services drawing its whole BG amount from the same bank ($200 million from OCBC, or about 80% by value of all BGs held by EMC). In addition, the risk manifests only if both the issuing bank <u>and</u> the retailer/MSSL default, which is unlikely. Also EMC accepts only BGs from banks with an S&P rating of "A" and above.

Given the significant costs and minimal benefits, the RCP decided not to support the proposal to disqualify BGs drawn from the clearing bank. The Panel decided instead to closely monitor the BG concentration and ratings of the BG-issuing banks.

PROPOSED CHANGES TO MARKET MANUAL

Existing Market Manual	Proposed Changes to Market Manual (Deletions represented by strikethrough text and additions represented by double underlined text)	Reason for Changes
Market Administration Market Manual (Part 1 of 4) Registration and Authorization- Appendix 1	Market Administration Market Manual (Part 1 of 4) Registration and Authorization- Appendix 1	
List of acceptable banks: • Local or foreign banks rated "A" or better by Standard & Poor's (S&P) (S& P Website: www.standardpoor.com/RatingsActions/Ratingslists/Financial Institutions/Index.html)	List of acceptable banks: • Local or foreign banks rated "A" or better by Standard & Poor's (S&P). <u>However, the prevailing bank or financial institution approved by the *EMC Board* under Market Rules, Chapter 7, Section 5.16.2 to be the clearing bank shall not be acceptable.</u> (S& P Website: www.standardpoor.com~~/RatingsActions/Ratingslists/Financial Institutions/Index.html~~)	To disqualify BGs drawn from the SWEM settlement clearing bank referenced in Chapter 7 Section 5.16.2. To revise the web link from the exact webpage to the homepage of S&P, as the former is no longer valid and could be subject to frequent changes.

ANNEX 2

MSSL's Response to the Proposed Rule Change on Disqualification of Banker's Guarantee Issued by SWEM Clearing Bank as Credit Support

TO	**:**	**EMC – MARKET ADMINISTRATION DEPARTMENT**
FAX	**:**	**6779 3030**
SUBJECT	**:**	**DISQUALIFICATION OF BANKER'S GUARANTEE ISSUED BY SWEM CLEARING BANK AS CREDIT SUPPORT**
ATTENTION	**:**	**JAN LEE**

At present, Market Participants can use Banker's Guarantees (BG) issued by SWEM Clearing Bank as credit support to cover their trading exposures. EMC has proposed to modify existing market rules so as to disqualify BG that are issued from the SWEM clearing bank from being used as credit support

The proposed change will have a significant impact on SP Services' costs which consequentially will result in the increase in tariffs to be borne by consumers. The impact is as follows:

1. Disqualifying BG issued by SWEM clearing bank means unilaterally transferring the risk to SP Services and other market participants

At present, SP Services obtained its BG from OCBC Bank and had fully paid the costs of the S$200M BG for year 2009 at the cost of approximately $0.96M. OCBC has confirmed that no refund for unused premium will be granted if SP Services were to cancel the existing BG.

With the appointment of OCBC Bank as the SWEM Clearing Bank by EMC and if the proposed rule change is implemented, SP Services' BG issued by OCBC will be made invalid.

Consequently, SP Services will need to obtain new BG from another banks rated "A" or better by Standard & Poor's (S&P) to replace the existing BGs issued by OCBC at a much higher rate at the current financial outlook.

Hence, it is not equitable for EMC to benefit from the change and unilaterally transfer the cost and risk to SP Services. The additional costs of obtaining the BG will have to be borne by consumers through higher MSS fees in the tariff.

2. **Disqualifying BG issues by SWEM clearing bank means less competition and hence higher cost of obtaining the BG**

The propose change will have an adverse effect on SP Services and other market participants as it could have the potential of reducing the available number of banks to compete for the issue of BG.

Foreign banks will not be able to issue the large sum of Singapore dollar BG due to their limited Singapore dollar facility. SP Services, being the biggest retailer in the wholesale electricity market, requires BG of approximately \$200M – S\$350M depending on the price of electricity. Hence, the available choices of banks for SP Services will be limited to only two local banks, i.e DBS or UOB. This situation will significantly weaken competition in the market, and hence resulting in higher cost of obtaining the BG.

Based on the recent inquiry in Mar 09, the remaining local banks have submitted an indicative quote of 0.8% for the S\$200M BG amount. The additional costs to SP Services would be the pro-rated balance of the year to cover the cancellation of BG issued by OCBC.

This means that for \$200M BG to be issued to EMC for the remaining 6 months in 2009 if the proposed rule change is implemented in July 09, SP Services would need to incur an additional cost of \$0.8M in bank charges. The total premium cost of the \$200M BG for SP Services would be \$1.76M inclusive of \$0.96M paid to OCBC.

The additional costs will have to be borne by consumers. This places higher financial burden on the consumers and is particularly ill-timed given the current economic climate.

3. **Disqualifying BG issues by SWEM clearing bank means concentration of risks among the remaining banks**

If all BGs issued by OCBC are to be disqualified, SP Services and other MPs such as Power Seraya and Senoko Power may need to obtain the new BGs from the other banks rated 'A' or better. Most likely, they would obtain their BGs from one of the two local banks since PowerSeraya and Senoko Power, being the two of the largest retailers, may require high Singapore Dollar BG. Foreign banks may not be able to issue such BGs to the retailers.

This will lead to higher concentration of risks and greater degree of dependence in the remaining two local banks, and thereby affecting market vulnerability. Furthermore, SP Services as well as the other market participants have other use of banking facilities and would have its own considerations in managing its own risk exposure with the banks. By limiting the choice of banks for BG issued to EMC, this poses further administrative constraints and risks to the market participants.

4. Disqualifying BG issues by SWEM clearing bank means higher risk to EMC

If SP Services and the other Market Participants, especially Power Seraya and Senoko Power, can only obtain their BGs from the remaining two local banks, the risk to EMC would be higher. This is because majority of the funds will be concentrated among the remaining two local banks.

5. Disqualifying BG issues by SWEM clearing bank means longer negotiation time for obtaining the BG

It would take much longer time for SP Services to obtain new BG from another local bank. Internally, SPS has to perform financial due diligence and at the same time thoroughly review the following legal documents before the issuance of the BG.

- the Bank's Standard Terms and Conditions,
- the Agreement and Indemnity
- Board resolution and others requested by the bank as conditions precedent

The above due diligence is time-consuming and painstaking process since significant involvement of parent company is needed prior to obtaining the BG given the large sum involved.

Hence, it is not practical to implement the proposed rule change in 2009. Sufficient time must be given to SP Services and the other Market Participants to obtain new BG from another bank. The earliest possible time for implementation should be in 2010.

In view of the above concerns, SP Services do not support this proposal.