ASX
AUSTRALIAN STOCK EXCHANGE

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Amendment to National Electricity (Reallocations) Rules: Further information

The Australian Stock Exchange Limited (ASX), the publicly listed holding company of the Sydney Futures Exchange and SFE Clearing Corporation (collectively 'SFE') submits the following information for the consideration of the Australian Energy Markets Commission (AEMC):

1. SFE has previously undertaken consultation with its Clearing Participants (CPs) as to whether they would participate in a re-allocation facility of the type proposed by the National Electricity Market Management Company (NEMMCO). This consultation established that CPs are unlikely to actively participate in NEMMCO facilitated reallocation dealings on behalf of NEM Participants due to the adverse financial and regulatory risks associated with a NEMMCO reallocation derivative market. A summary of these risks is presented in Appendix 1.

   The ASX remains of the view that defining and supporting Futures Offset Arrangements (FOAs) in the National Electricity Rules is likely to be the only practical way for NEM Participant's futures hedges to offset spot market collateral requirements.

2. NEMMCO's (reallocation) Rule change request suggests amendments to the definition of the Trading Limit (s 3.3.10) and Outstandings (s 3.3.9) for Market Participants. Slight modifications to the existing or suggested formulae could also enable Market Participants to apply FOAs without unnecessarily reducing their Trading Limit or increasing the likelihood of Call Notices. Suggested modifications are presented in Appendix 2.

Both before and after submitting the proposed Rule changes to define and support FOAs in the National Electricity Rules the SFE and d-cyphaTrade had discussions with NEMMCO regarding the use of positive variation margins from NEM Participant's (Retailers) futures contracts to reduce their MCL requirement without impacting on the integrity of prudential coverage for generators within the NEM.

The ASX is aware that NEMMCO has residual concerns regarding the proposed Rule change as to the risk of short payment to generators. Conversely, the ASX remains firmly of the view that:

1) futures settlement prices adjust sufficiently well to provide generators with acceptable compensation as per the examples in the joint submission from 20 NEM Industry Participants to the AEMC (or in fact analysis of any data over any calendar quarter). The AEMC should note that the same futures settlement prices are used to mark-to-market generators’ futures and centrally cleared over-the-counter (OTC) positions – the value of which far exceeds NEM Participant Outstandings to NEMMCO. The AEMC should also note that three generators supported the joint submission;

2) that the assessment timing risk of a spot price spike occurring after the determination of SFE Official Daily Settlement prices at 5:10 pm is just as valid (or irrelevant) as the current 1 business day exposure of generators to a retailer default that occurs after NEMMCO's prudential assessment of NEM Participant's Outstandings at or before 10 am; and

3) under the suggested FOA rules, CPs would make defined cash payments to NEMMCO using the same funds transfer mechanism which any financial institution, under instruction from a NEM Participant, would use to make payment to NEMMCO under current arrangements.

The ASX also maintains that the proposed Rules would provide NEMMCO with prudential coverage that is as good as the status quo if not better to adequately compensate generators in the instance of a retailer default. For example, via futures offsets NEMMCO progressively receives cash (from a CP), a more liquid and readily available asset than a Letter of Credit. In fact the positive variation margins received from FOAs is uncapped (unlike Letter of Credit support) such that at times NEMMCO is likely to hold too much cash and Retailers will periodically request withdrawals.

The ASX is particularly concerned that the current Rule change proposed by NEMMCO would permit NEMMCO to specify what is or is not an acceptable re-allocation within their own Determinations. SFE (now ASX) has been in dialogue with NEMMCO for more than 18 months without making any material progress towards a mutually agreed re-allocation facility that would accept the positive margin payments from futures contracts to reduce NEM Participant’s (Retailers) MCL Requirements. The ASX has therefore resolved to progress a solution that would effectively facilitate futures based offsets via an appropriate Rule change.

ASX would welcome the opportunity to answer any questions or discuss this submission with the AEMC.

Regards,

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Appendix 1. Financial and Regulatory Risks for CPs as "Reallocators" Under NEMMCO's Proposed Rule Change Request

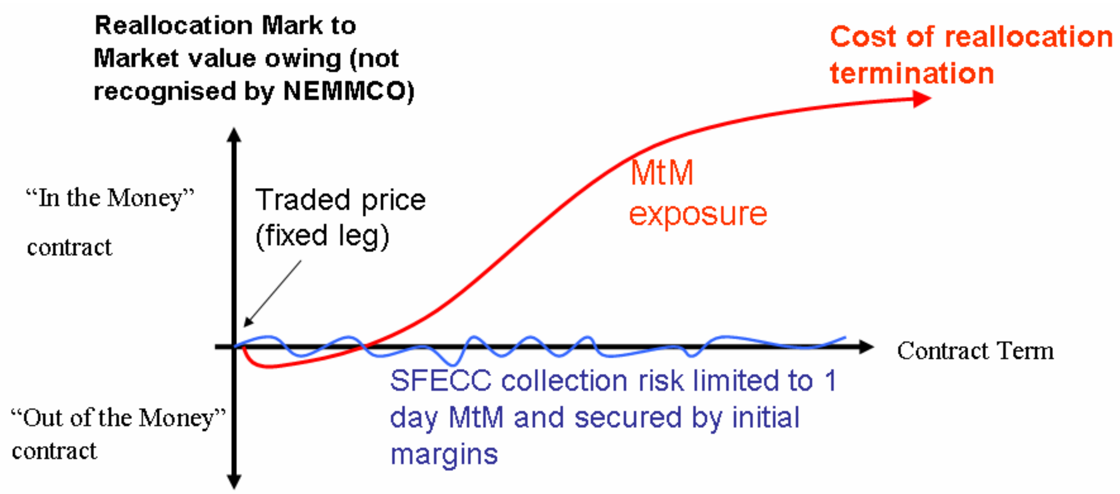
Non firmness of NEMMCO Letter of Credit methodology compared to Daily Cash Margining

CP reallocators would be at increased risk due to shortfalls in Letter of Credit coverage during high pool prices. The inability of MCL-based Letters of Credit (even if NEMMCO's proposed Prudential Margin is adopted[1]) to secure obligations owed to NEMMCO creditors (such as CP reallocators) during high pool prices in the absence of daily mark to market margining, is likely to deter CP involvement in NEMMCO reallocation arrangements.

Non-firmness of NEMMCO reallocations creates unacceptable termination risk for CP reallocators – with zero compensation for contract replacement value

CPs facilitating bought SFE futures contracts on behalf of retailers are not exposed to the risk of the futures contract being terminated due to the default of the futures seller (e.g. generator). In comparison, retailers, generators or reallocators (e.g. CPs) that engage in NEMMCO reallocations are at risk of the reallocation being terminated due to the Rule-defined default of the NEM Participant on the other side of a reallocation derivative. As a result:

1. Upon termination by NEMMCO a reallocating party could suffer multi-million dollar contract replacement losses if the forward term of the reallocation contract was deeply "in the money" compared to the replacement price of equivalent futures or OTC products at the time of termination. Unlike the contract transfer or close-out mechanisms available to the SFECC, NEMMCO's reallocation termination procedures do not provide contract value integrity via contract transfer to another CP or cash redemption at an "at market" valuation (see diagram below).



2. If a defaulting generator or retailer caused NEMMCO to terminate a reallocation derivative which was millions of dollars "in the money" on a mark to market basis, NEMMCO merely terminates the reallocation without paying any forward mark to market value owing to the non-defaulting party.

Netting risk

[1] For example, 40 minutes of high pool prices in Victoria during Q1 2006 (from 10:30 am on 24.2.2006) was sufficient to eradicate 7 days worth of MCL guarantees (or a proposed "Prudential Margin") at NEMMCO's volatility-adjusted MCL price estimate of $33.57/MWh for the quarter.

The absence of effective legal netting of reallocation derivatives may expose CP reallocators to losses from equal and opposite reallocation positions. E.g. if a CP has a bought reallocation swap and an equal sold reallocation swap (creating zero market risk under normal conditions), any subsequent default-triggered termination of one reallocation by NEMMCO immediately creates market risk for the CP, for the remaining duration of the surviving reallocation derivative. Contract replacement costs could cause unacceptable trading losses (even if replacement reallocation derivatives could be sourced at short notice).

By contrast, contract novation provided by the SFECC provides perfect netting of bought and sold futures contracts.

Concentration risk

Concentration risk (to commodity type and client type) is significantly higher in an electricity-only reallocation derivative market compared to diversification benefits from multiple product, industry sector, and client exposures on the SFE. The presence of numerous CPs (contributing to formalised CP risk mutualisation arrangements) under the SFECC risk management framework further reduces the risks to CPs conducting SFE activities, in comparison to NEMMCO reallocation activities.

Non firmness of reallocations exposes CP Reallocators to generation outages

Under NEMMCO reallocation derivatives, CP reallocators will be forced to indirectly bear the risk of generator outages. For example, a CP reallocator is at risk of NEMMCO terminating a reallocation derivative due to a reallocated generator suffering an unforseen generation outage or intra-regional constraint.

In comparison, a buyer's futures contract is more "firm" because it is not terminated as a result of the default of the futures seller (e.g. generator).

Non firmness of reallocations with regard to half hour coverage

CP reallocators will also be exposed to the ability for NEM participants to deliberately arbitrage the lack of price transparency in the NEMMCO reallocation market. NEM Participants may currently reallocate via an ex-ante reallocation swap involving only "off-peak" hours, yet receive a MCL guarantee reduction from NEMMCO at the "base load" MCL rate, as if the reallocation was also providing proportional coverage across the more volatile peak hours. This pricing arbitrage could leave CP reallocators (and other NEM creditors) under-secured during peak periods.

In contrast, under the proposed Futures Offset Arrangements, any MCL reduction is proportional to the Futures lodgement price (the higher the futures price at inception, the smaller the MCL reduction), transparently reflecting the "market consensus" value of the half hours covered by the term of the futures contract. If the futures market has already priced high half hourly price spikes into the price of the futures contract, variation margins may not occur on the same day as pool spikes, but any MCL reduction would have been commensurately less (and residual MCL guarantee coverage would be commensurately higher).

Liquidity risk

The inability to close out any sold reallocation positions except with the permission of (and at a price set by) a same-region generator reduces the ability to effectively manage or terminate reallocation positions in an orderly fashion (at a fair market price) when required.

Reduced regulatory oversight and supervision

The clearing and trading activities of the SFE and SFE Clearing Corporation (SFECC) are regulated by the Australian Securities and Investment Commission (ASIC) and the Reserve Bank of Australia. As a licensed market operator of a derivatives exchange (in accordance with Corporations Law), the SFE must gain approval for any electricity derivative product from ASIC. This requires the SFE to prove that it has the competence to conduct a fair and orderly market with approved trading rules, full participant access and requisite clearing and risk management support of each listed electricity derivative.

CPs are highly unlikely to participate in NEMMCO facilitated reallocations derivatives, or will charge NEM Participants increased fees to compensate for increased settlement and compliance risks unless the NEMMCO reallocation derivative market is centrally cleared by a licensed Clearing and Settlement Facility (under Corporations Law) with an equivalent level of derivative product oversight from ASIC.

Increased reallocation funding costs for CPs under APRA requirements

The electricity futures contracts are cleared by the SFECC, a Central Counter-Party clearer which applies daily mark to market margining. Daily margining, contract netting and strict risk management and prudential supervision by the SFECC supports very efficient collateral management and limits CP risk and collateral requirements to a one day mark-to-market price move (secured by initial margins). As such, the electricity futures contracts attract a zero credit risk weighting for CPs under the Basel II framework. This will be critical in keeping CP bank balance sheet funding costs low, when complying with ongoing Australian Prudential Regulatory Authority (APRA) requirements.

In comparison, NEMMCO facilitates the trading of ex-ante reallocation derivatives without the prudential safeguard of daily mark-to-market margining. This increases settlement default risk to CP reallocators. As a result, under upcoming APRA requirements, CP banks must provision for the increased credit risk of NEMMCO settlement default through increased balance sheet funding, at an increased cost to the CPs and their NEM clients.

Appendix 2 Amendments to Trading Limit and Outstandings – accommodating FOAs

Modifications to the Trading Limit formula (current and suggested) and to the Outstandings formula (current and suggested) are provided below **(bold blue font)**:

1. To adjust the Trading Limit for FOAs in the current Rules:

3.3.10 Trading limit

(a) The *trading limit* for a *Market Participant* is the dollar amount which is the product of the *prudential factor* and the greater of:

(i) **the sum of** the *Market Participant's maximum credit limit* **and any reduction in the Market Participant's Maximum Credit Limit resulting from a Futures Offset Arrangement** ; or

(ii) the *credit support* provided by the *Market Participant*.

(b) *NEMMCO* shall from time to time in its discretion, and after consultation with *Market Participants* in accordance with the *Rules consultation procedures*, set and *publish* the *prudential factor*. The *prudential factor* shall be set on the basis that the product of the *prudential factor* and a *Market Participant's maximum credit limit* will result in a *trading limit* (at which *call notices* can be issued by *NEMMCO* in accordance with clause 3.3.11) which is sufficiently less than the *maximum credit limit*, such that if the *Market Participant* fails to comply with a *call notice* it would be expected that *default event* and suspension procedures could be applied to the *Market Participant* before the *outstandings* of the *Market Participant* exceed the *maximum credit limit*, on the basis of the trading, price and volatility assumptions used in calculating the *maximum credit limit* for that *Market Participant*.

(c) Until otherwise determined and *published* by *NEMMCO*, the *prudential factor* is:

(1) 84% where the *maximum credit limit* is calculated on a *payment period* of 28 *days*; or

(2) 75% where the *Market Participant* has lodged and *NEMMCO* has accepted a *reduced payment period request* for the *maximum credit limit* to be calculated on a *payment period* of 14 *days*.

2. To adjust the Trading Limit for FOAs in the new NEMMCO (reallocation) Rule change request:

3.3.10 Trading limit

NB The Trading Limit is now to be determined in terms of the Maximum Credit Limit and Prudential Margin.

(a) The trading limit for a Market Participant is the dollar amount ~~which is the product of the prudential factor and the greater of:~~

~~(i) the *Market Participant's maximum credit limit;* or~~
~~(ii) the *credit support* provided by the *Market Participant.*~~ determined by *NEMMCO* on the basis of a "reasonable worst case" estimate by *NEMMCO* applying the principles in schedule 3.3 and determined by using the following formula:

$TL = CS - PM_{RP}$

where:

TL is the *trading limit*;

CS is the **sum of** *credit support* provided by the *Market Participant* **and any reduction in the Market Participant's Maximum Credit Limit resulting from a Futures Offset Arrangement;**

PM is the *prudential margin* determined in accordance with clause 3.3.8(c).

Note: If the *prudential margin* exceeds the *credit support* the *trading limit* will have a negative value.

NB As the Trading Limit is now prescribed in terms of the Maximum Credit Limit and Prudential Margin, the provision for the Prudential Factor to be amended by NEMMCO is redundant, the principles for the Trading Limit also become redundant.

(b) **[deleted]**.~~*NEMMCO* shall from time to time in its discretion, and after consultation with *Market Participants* in accordance with the *Code consultation procedures*, set and *publish* the *prudential factor*. The *prudential factor* shall be set on the basis that the product of the *prudential factor* and a *Market Participant's maximum credit limit* will result in a *trading limit* (at which *call notices* can be issued by *NEMMCO* in accordance with clause 3.3.11) which is sufficiently less than the *maximum credit limit*, such that if the *Market Participant* fails to comply with a *call notice* it would be expected that *default event* and suspension procedures could be applied to the *Market Participant* before the *outstandings* of the *Market Participant* exceed the *maximum credit limit*, on the basis of the trading, price and volatility assumptions used in calculating the *maximum credit limit* for that *Market Participant*.~~

(c) **[deleted]**~~Until otherwise determined and *published* by *NEMMCO*, the *prudential factor* is:~~

~~(1) 84% where the *maximum credit limit* is calculated on a *payment period* of 28 days; or~~

~~(2) 75% where the *Market Participant* has lodged and *NEMMCO* has accepted a *reduced payment period request* for the *maximum credit limit* to be calculated on a *payment period* of 14 days.~~

3. To adjust the calculation of Outstandings to accommodate FOAs in the current Rules:

3.3.9 Outstandings

At any time the "*outstandings*" of a *Market Participant* is the dollar amount determined by the formula:

O = A + B - (C + D + E **+F**)

where:

O is the amount of the *outstandings* of the *Market Participant*, to be determined;

A is the aggregate of the *settlement amounts* payable by the *Market Participant* to *NEMMCO* in respect of *billing periods* prior to the current *billing period* which remain unpaid by the *Market Participant* (whether or not the *payment date* has yet been reached);

B is the *settlement amount* payable by the *Market Participant* to *NEMMCO* in respect of *transactions* for *trading intervals* which have already occurred in the current *billing period*;

C is the aggregate of the s*ettlement amounts* payable to the *Market Participant* by *NEMMCO* in respect of *billing periods* prior to the current *billing period* which remain unpaid by *NEMMCO* (whether or not the *payment date* has yet been reached);

D is the *settlement amount* payable to the *Market Participant* by *NEMMCO* in respect of *transactions* for *trading intervals* which have already occurred in the current *billing period*; ~~**and**~~

E is the balance (if any) of the *Market Participant* in the security deposit fund, or in which case a credit balance will be a positive amount and a debit balance will be a negative amount**; and**

F is any amount as calculated under s3.5.11.B and payable to NEMMCO by a Clearing Participant resulting from a Futures Offset Arrangement but which has not yet been paid,

but if O is negative then the *outstandings* of the *Market Participant* are zero. The amounts to be used in this calculation will be the actual *settlement amounts* for *billing periods* where *final statements* have been issued by *NEMMCO* or *NEMMCO's* reasonable estimate of the *settlement amounts* for *billing periods* where *final statements* have not been issued by *NEMMCO*.

4. To adjust the definition of Outstandings to accommodate FOAs in the new NEMMCO (reallocation) Rule change request:

3.3.9 Outstandings

NB The settlement amount payable is the net amount to be transacted in cash on each settlement day. It is net of amounts payable to NEMMCO and by NEMMCO for that week. Accordingly items C and D below are redundant and parts A and B need to be modified to recognise that settlement payments may be either to or

from NEMMCO (typically for retailers and generators respectively). The pronumeral for Outstandings is changed to ‘OS’ to avoid confusion between ‘O’ and zero.
Rule 3.15.13 defines a negative settlement amount (e.g. A, B and SDA) as an amount owing from a Market Participant to NEMMCO. The concepts in this Rule 3.3 of Outstandings, Trading Limits, Typical Accruals and Call Amount take a positive value when a Market Participant owes money to NEMMCO. The signs used in these revisions more clearly address these definitions.

At any time the "*outstandings"* of a *Market Participant* is the dollar amount determined

by the formula:

$OS = -(A + B + SDA + \mathbf{F})$

~~O = A + B - (C + D + E)~~

where:

OS is the amount of the *outstandings* of the *Market Participant*~~, to be determined~~;

A is the aggregate of the net *settlement amounts* payable ~~by the *Market Participant* to *NEMMCO*~~ in respect of *billing periods* prior to the current *billing period* which remain unpaid by, or to, the *Market Participant* whether or not the *payment date* has yet been reached;

B is the net *settlement amount* payable by, or to, the *Market Participant* to ~~*NEMMCO*~~ in respect of *transactions* for *trading intervals* ~~which~~ that have already occurred in the current *billing period*;

~~C is the aggregate of the *settlement amounts* payable to the *Market Participant* by *NEMMCO* in respect of *billing periods* prior to the current *billing period* which remain unpaid by *NEMMCO* (whether or not the *payment date* has yet been reached);~~

~~D is the *settlement amount* payable to the *Market Participant* by *NEMMCO* in respect of *transactions* for *trading intervals* which have already occurred in the current *billing period*;~~

~~E~~SDA is the balance (if any) of the *Market Participant* in the security deposit fund, in which case a credit balance will be a positive amount and a debit balance will be a negative amount~~,.~~**;**

F is any amount as calculated under s3.5.11.B and payable to NEMMCO by a Clearing Participant resulting from a Futures Offset Arrangement but which has not yet been paid,

~~but if O is negative then the *outstandings* of the *Market Participant* are zero.~~ The amounts to be used in this calculation will be the actual *settlement amounts* for *billing periods* where *final statements* have been issued by *NEMMCO* or *NEMMCO's* reasonable estimate of the *settlement amounts* for *billing periods* (where *final statements* have not been issued by *NEMMCO*).

<u>Note: Where the value of *outstandings* of a *Market Participant* is a negative amount the absolute value of the *outstandings* amount will, for the purposes of clause 3.3, be treated as if it were an amount payable by *NEMMCO* to the *Market Participant*.</u>

NB The existing Rule does not clearly contemplate that Outstandings could be negative.