WORKING EXAMPLES OF FUTURES OFFSET ARRANGEMENTS (FOA) MODELS FOR RISK ASSESSMENT

The attached FOA Model 1 and FOA Model 2 were developed in consultation with the Working Group established by the Commission to advise the Review into the role of hedging contracts in the existing NEM prudential framework.

These models are working examples that were provided to PricewaterhouseCoopers (PwC) to assess the risks associated with the models and to make recommendations on options to enhance the models as part of PwC's assignment.

PwC makes references to these FOA models in its draft risk assessment report. These models are therefore provided for stakeholders information.

A.3.1 Proposed FOA Model 1

This is the "Model 1" arrangement, where, in brief, the SDA value is used as payment against bills, arising in the period against which SDA payments relate, fall due. Once applied, funds no longer required are handed back to the Participant, and the DSPh is reset higher every day that the price rises, and lower only weekly, if the start of relevant week price is lower than the preceding week's prices.

Futures Offset Arrangement Request and Registration

Parties

1. Direct Retailer FOA

    1.1. Contractual arrangement is between:

    1.1.1. SFE Clearing Participant (CP); and

    1.1.2. NEM participant who is a party to a futures contract and uses it to enter into the FOA (FOA Party NEM Participant, or FPNP). A FPNP is registered in the NEM (typically as a Market Customer).

    1.2. There is a contractual arrangement between the CP and the FPNP with regards to the futures position. Included in the contract must be clauses relating to the provision of accurate and timely information to NEMMCO as required under the Rules. Rules will have to be amended to include NEMMCO's requirements;

    1.2.1. The change to contract containing the undertaking to provide accurate and timely to NEMMCO would normally be an addendum to the Clearing Agreement between FPNP and CP;

    1.2.2. A standard form contract addendum will be developed by NEMMCO, included in NEMMCO's Procedures, and given force under the National Electricity Rules (Rules), to include:

    1.2.2.1. Undertaking that the cashflows arising from futures contracts under FOA will not be netted against other cashflows relating to positions the FPNP holds with the CP;

    1.2.2.2. Obligation that CP provides information on variation of contracts and positions relating to FOA to NEMMCO in a timeline agreed with NEMMCO and in a form prescribed by NEMMCO;

    1.2.2.3. Undertaking by CP to provide accurate and up to date information in a timely manner regarding all communications with NEMMCO;

    1.2.2.4. Undertaking by CP to provide notification of updated prices if the SFE published settlement price is incorrect on any day for any reason;

    1.2.3. If possible, there is to be a side letter from the CP to NEMMCO, specifying and agreeing to the terms in the addendum;

    1.2.3.1. This options needs to be investigated, we do not know whether CPs will agree to this clause;

    1.3. NEMMCO will be given the right to perform random audits on contracts and futures positions covered by FOA, and will be able to terminate FOAs that do not comply with Rules and Procedures;

    1.3.1. Significant penalties would be imposed on FPNP if they are found to be providing inaccurate information and/or not complying with the Rules regarding FOA. A relevant Rule change to enforce this may have to be implemented.

FOA Registration Timeline

2. Registration Timeline

    2.1. FOAs can be lodged by the FPNP, up to 90 days before the start of the quarter to which the underlying futures contract relates (*Lodgement Date*);

2.1.1. FOA must be lodged prior to close of the SFE markets (appx 4:30pm) on the *Lodgement Date*;

2.2. The end of day *Lodgement Date* Futures Settlement Price is the *Futures Lodgement Price* (FLP);

2.3. The following business day is the FOA *Effective Date;*

2.4. From the *Effective Date*, NEMMCO require two business days (*Processing Period*) to calculate the change in MCL, and the updated MCL level is implemented in line with current arrangements under the Rules;

2.4.1. The *Processing Period* will be 2 business days at the start of the quarter;

2.4.2. NOTE: The MCL reduction will occur in the quarter to which the futures contract relates; ie. If a FOA for Q409 is lodged 90 days prior, the MCL reduction will only come into effect on 1/10/09.

2.5. FOAs can be lodged any time up to the end of the quarter to which the underlying futures contract relates but will be subject to the *Processing Period* before the MCL can be reduced;

2.6. Expiring FOAs will need to be replaced with alternative credit support, or another FOA, in line with the existing Rules for replacement credit support;

2.6.1. Existing arrangements for replacing expiring credit support are 7 days for "same pattern" replacements, and 30 days for a variation (including new Reallocation Arrangements).

Elements of FOA

3. FOA Elements

3.1. Term

3.1.1. *Lodgement Date*

3.1.2. *Termination Date*

3.1.2.1. The Termination Date would normally be expected to fall on the Futures contract expiry date;

3.1.2.2. See point 4 below for more information on the Termination Date;

3.2. Futures contract specifications;

3.2.1. Futures contract region;

3.2.2. Product code as referenced by exchange;

3.2.2.1. Contract Term;

3.2.2.2. MWhs per contract;

3.2.2.3. Load shape –Baseload only permitted;

3.2.3. Quantity of futures contracts;

3.2.4. FLP;

3.2.4.1. FLP will be determined automatically by NEMMCO as per point 2.2 above;

3.2.4.2. NEMMCO will have the capacity to re-process the FLP if there has been an error in the published Settlement Price;

3.2.4.2.1. To assist with re-processing procedures, NEMMCO will request to be added to the SFE mailing list regarding price corrections;

3.2.4.2.2. Updated prices must be received by 8:00am on the day following the error for the correction to be implemented by NEMMCO on that day;

3.2.4.2.3. If the corrected prices are received after 8:00am, then the correction will be implemented as soon as practically possible by NEMMCO.

Termination Date

4. The *Termination Date* is the date from which the FOA is no longer in effect. There are four scenarios under which the FOA may become terminated:

4.1. Expiry;

4.2. Voluntary;

4.3. No Margin Payment; or

4.4. Involuntary;

These scenarios are covered in more details under the heading “Termination” in s8 below.

Conditions for FOA Registration

5. Conditions:

5.1. Existence of underlying futures contract, that has been set up under a separate client sub-account with clear, unencumbered access to cashflows and with no netting of FPNP positions;

5.1.1. Details of the futures contract will be forwarded to NEMMCO in line with the agreement in point 1.2.2 above;

5.1.2. Note: whilst CPs are generally able and willing to set up client sub-accounts, and maintain independent cashflows for the sub-accounts, in times where the counterparty is defaulting on one sub-account, most CPs are likely to close out the positions in all sub-accounts. This results in a lack of certainty around cashflows from FOA when the FPNP is financially distressed; For clarity:

5.1.2.1. Under normal operation, The FPNP would have one client sub-account containing the futures positions relating to FOA, and another sub-account relating to futures positions not covered by FOA. When money was owed on the FOA sub-account, that money would be paid without being netted off the non-FOA sub-account, leaving unencumbered cash flows;

5.1.2.2. If, however, the FPNP defaults on the non-FOA sub-account while expecting a margin payment from the FOA sub-account, it is anticipated that the CP would close out *all* positions that the FPNP holds with the CP, and would not make the margin payment expected on the FOA sub-account. As it is anticipated that a FPNP would only default on their futures positions in times of financial distress, this circumstance would result in a distressed NEM Participant having a reduced MCL and no firm cashflows supporting the reduction;

5.1.2.3. Alternatively, the FPNP may establish a sole purpose futures clearing account, just for FOA contracts, with a CP that does not clear any other futures contracts for the FPNP. This quarantines the FOA cashflows.

5.1.3. The FPNP must provide NEMMCO with information regarding the CP arrangement, i.e. whether they have a separate sub-account with one CP who holds non-FOA positions for the FPNP, or whether they have a CP who holds only FOA-related futures contracts, as the β factor may be affected by the CP agreement;

5.2. FPNP commits not to sell or otherwise dispose the futures contract, except on an expiry date specified in the terms of the FOA and with alternative credit support in place prior to closing out of futures position;

5.2.1. Termination on a date that is different to the specified termination date is covered in more detail under the heading “Termination” in S9 below;

5.3. FPNP undertakes to make futures margin payments relating to the FOA to NEMMCO;

5.3.1. Margin payment calculations are to be processed by NEMMCO and forwarded to the FPNP and the CP;

5.3.2. The FPNP may make the payment themselves, or may nominate their CP to make the margin payment to NEMMCO, determined by a one-off nomination at the commencement of the FOA;

5.3.3. The Austraclear counterparty must be notified to NEMMCO in advance;

5.3.4. NOTE: this payment is to be a mirror of SFE margins, not an assignment of SFE margins, a legal distinction which may help reduce the risk of clawback;

5.4. If, after the futures margin payment is taken into account, the Participant’s Total Outstandings (TO) are greater than the TL, then the breach must be rectified in accordance with existing prudential procedures.

Margin Payments and Timeline

6. Margin Payments

6.1. Margin Payments to NEMMCO need only reflect the increases beyond the maximum of the FLP or the highest futures price already reached relating to the relevant NEM billing period of 7 days. Any price variations resulting in margin payments for values below the maximum already reached and paid to NEMMCO, need not be forwarded to the SDA.

6.1.1. For Example: If the FLP is \$40/MWh, and the futures price rises to \$60/MWh, then NEMMCO will receive a margin payment for the \$20/MWh increase. If the price then drops to \$50/MWh, NEMMCO does not pay back any of the margins. This obligation falls to the FPNP. If the price then increases to \$55/MWh, NEMMCO will not receive a margin payment, as they already received a payment for the increase in price up to \$60/MWh. If the price then rises from \$55/MWh to \$62/MWh, then NEMMCO receive a margin payment for the increase above \$60/MWh that they already received, ie. For an increase of \$2/MWh.

6.1.2. The FPNP cannot withdraw cash from the SDA if the market falls, unless the Billing Period to which the highest settlement price relates has passed;

6.2. Margin Payments will be made on *Calculation Days* which are futures exchange business days. The first *Calculation Day* is the day after the *Effective Date* of the FOA; ie.

D1 = *Lodgement Date*
FLP = settlement price on *Lodgement Date*
D2 = *Effective Date*, and there is no margin payment as there is no movement in prices until the end of D2
D3 = first *Calculation Date* where margin payments for change in settlement prices between D2 and D1 are paid;

6.3. Note: Futures Exchange business days are not the same as NEM business days. NEM Business days are Mon-Fri, excluding national public holidays. There may therefore be days when prudential requirements increase and there are no margin payments from the SFE due to differing “business days”;

6.4. If the FOA is lodged prior to the quarter to which it relates, then the positive margins will be held by NEMMCO until the first billing period in that quarter falls due, at which point margins will be applied against the bill as per the usual process.

6.5. Timeline

6.5.1. The first Margin Payment will be made on the first day that has a positive margin after (but not including) the FOA *Effective Date*;

6.5.2. NEMMCO provides a daily clearing statement to the FPNP by 8:00am on the *Calculation Day*;

6.5.3. The Margin Payment must be transacted and cleared by 11:00am on the same day;

6.5.3.1. Margins must be paid to NEMMCO’s security deposit account (SDA), by either the FPNP or the CP, as nominated in S5.3;

6.5.3.2. NEMMCO does not pay back margins when margins are negative;

6.5.3.3. The final payment is to be made the day after the *Termination Date* for movements on the *Termination Date*;

6.5.4. If payment is not cleared by 11:00am on the *Calculation Day* then by 1:00pm on the same day, a call notice will be issued by NEMMCO;

6.5.4.1. Note: under the current Rules, a call notice must be issued by 12:00pm for a default event to be instigated the following day. The Rules may need to be changed to allow default events to be initiated on the day following a 1:00pm call notice;

6.5.5. If there is no response to the call notice by 12:00pm on the day following the notice, then NEMMCO may instigate existing default proceedings.

6.6. Calculation of Margin Payments

6.6.1. Margin Payment = Max[(DSPt – Max (FLP, DSPh]) x FQ, 0]
where;
DSPh = previous highest daily settlement price for futures contract since *Effective Date* during the NEM outstanding period
DSPt = official daily futures contract settlement price as at close of business immediately prior to calculation day
FQ = Quantity of futures contracts x energy covered under each FOA futures contract

FLP = Futures Lodgement Price

6.7. There is a further consideration regarding margin payments, that the value derived from the margin payments, relating to futures price movements, does not reflect the physical market price movements. i.e. There may be circumstances where the margins from the FOA do not cover the increases in TO arising from the spot market;

6.7.1. A solution is to adjust the margin payments calculated by NEMMCO by a ‘shortfall equation’ which would equal zero when sufficient cashflows arise out of the FOA margin payments;

6.8. When the 42-day MCL period straddles the end of the quarter, the FOA margin payment need only apply to the portion of MCL that is in the quarter to which the FOA relates.

6.9. DSPh resets

6.9.1. DSPh will be reset higher on each day that DSPt>DSPh, so that DSPh=DSPt.

6.9.2. Downward DSPh resets will occur when the bill, to which the highest DSPh relates, has been paid. DPSh can then be reset to the highest futures price relating to the TO period.

6.9.2.1. Eg. If the FLP is $40/MWh, and in week 1 the futures price rises to $50/MWh, DSPh is $50/MWh. If in week 2 the price fluctuates, with a high of $55/MWh, then the DSPh is reset to $55/MWh. If the price then falls to $45/MWh for weeks 3-5, then DSPh remains at $55/MWh. When the bill for week 1 is paid in week 5, the DSPh relating to week 1 ‘disappears’, but as the DSPh is already $55/MWh, then it remains at $55/MWh. In week 6, the bill for week 2 is paid, and the DSPh from week 2 ‘disappears’. The DSPh reset is relevant, as the highest price after week 2 is $45/MWh. Therefore, on week 6, after the week 2 bill is paid, the DSPh is reset to $45/MWh. The DSPh will increase again when the futures price rises above $45/MWh.

6.10. Settlement

6.10.1. NEMMCO uses the amount in the security deposit to offset the amount owing by FPNP against the relevant settlement statement, unless otherwise agreed by NEMMCO and the FPNP;

6.10.2. The relevant settlement statement is the billing period to which the FOA margin movement relates. i.e. A FOA price movement for a Q409 contract will only be used to settle bills arising in Q409;

6.10.3. NEMMCO to ensure it holds accumulated margin payments to cover the difference between the FLP and highest official settlement price relating to the Total Outstandings Period and until the billing week has been settled;

6.10.4. Additional funds in the SDA will be returned when the period to which they apply have passed, if they have not been used as payment against the Participant’s Total Outstandings;

6.10.5. All interest accrued by NEMMCO whilst holding the margin payments will be returned to the Participant as per the usual process for returning interest from security deposits

MCL Reduction

7. MCL calculation:

7.1. MCL = P x VF x EL x Tcp x LF x (GST+1)
For load-only Participant with no reallocations

Where:
P = average historical price used in MCL calculation
VF = volatility factor
EL = load estimate
FL = load under FOA
FLP = futures lodgement price
Tcp = credit time period, which is 42 days unless the Participant has requested a RMCL, in which case Tcp is 28 days
Trp – the reaction time period, which is 7 days
LF = loss factor

7.2. MCL Reduction = MIN[β,1] * Max [(P x VF – FLP) x FL x (Tcp-Trp),0]

Where:
β is a risk adjustment factor between 0 and 2, applied to the MCL reduction to account for the risk impact (positive or negative) to the prudential framework arising due to the introduction of FOAs when compared to:

7.2.1. The existing prudential framework, including RMCL and reallocations; and
7.2.2. An unconditional bank guarantee

7.3. When the 42-day MCL period straddles the end of the quarter, the MCL reduction only applies to the period which is covered by the FOA.
7.4. The MCL reduction applies only in the period to which the futures contract relates. i.e. If a FOA is lodged in Q409 for a contract that expires in March 2010, the MCL reduction is applicable only from 1 Jan 2010.

Termination of FOA

8. The *Termination Date* is the date from which the FOA is no longer in effect. There are four scenarios under which NEMMCO may terminate the FOA;

8.1. Expiry;
8.2. Voluntary;
8.3. No Margin Payment; or
8.4. Involuntary.

The procedures following termination and the circumstances under which termination is allowed (if any) are outlined below:

8.1. Expiry
8.1.1. Futures contracts stop trading at the end of the quarter to which they relate and expire on the 3rd business day after the end of the relevant quarter (eg, a Q109 futures contract expires on the 3rd business day after close of trading on 31 March 2009). A final Cash Settlement Price (in effect, a final daily Settlement Price) is confirmed by the SFE on the 3rd business day of the relevant quarter, based on the average pool price for the quarter as instructed by NEMMCO to the SFE on the 1st business day after the end of the quarter;
8.1.2. A FOA would normally terminate when the futures contract expires, at which point (or prior to this day) further FOAs will have to be lodged or bank guarantee will have to be provided;
8.1.3. Alternative support must be provided before the expiry of the futures contract, in line with existing Rules for replacement credit support;
8.1.3.1. Existing arrangements for replacing expiring credit support are 7 days for “same pattern” replacements, and 30 days for a variation (including new Reallocation Arrangements)

8.2. Voluntary;
8.2.1. Prior to the expiry of the futures contract, a Participant may decide they want to terminate the FOA for any reason;
8.2.2. They must provide written/system notice to NEMMCO of their intention to terminate the FOA;
8.2.3. They must provide alternative credit support at least 10 days prior to the intended termination date;

8.3. No Margin Payment;
8.3.1. As outlined in the Margin Payments and Timeline section, NEMMCO provides a daily clearing statement to the FPNP and CP by 8:00am, and the Margin Payment must be transacted and cleared by 11:00am on the same day;
8.3.2. If NEMMCO does not receive a Margin Payment as expected, they issue a call notice on the calculation day at 1:00pm;
8.3.3. If the FPNP does not meet the call notice by 11:00am the following day, a default event will be instigated;
8.3.4. For clarity;

8.3.4.1. Between D1 and D2 there is a positive settlement price movement resulting in a margin payment coming due to NEMMCO;
8.3.4.2. By 8:00am on D3 NEMMCO issue a statement to the FPNP relating to the D1-D2 price movement;
8.3.4.3. By 11:00am on D3, the FPNP must make the margin payment;
8.3.4.4. If there is no payment forthcoming, then at 1:00pm on D3 NEMMCO to issue a call notice;
8.3.4.5. The FPNP must meet the call notice by 11:00am on D4;
8.3.4.6. If the notice is not met, then default proceedings begin at 12:00pm on D4;

8.4. Deemed Margin Payment agreed in advance;

8.4.1. If a FPNP has sufficient funds in their SDA to cover a margin payment requirement (eg, in the instance where they have made an advance payment in anticipation of future price movements), and remain within their TL, the FPNP may request NEMMCO allow a *Deemed Margin Payment* and not be liable for the agreed value;
8.4.1.1. This arrangement must be requested in advance, or it will be considered as per S8.3 above, and could lead to a default event;
8.4.1.2. The FPNP can request that NEMMCO agree to take a *Deemed Margin Payment*, but it is at NEMMCO's discretion whether to accept a *Deemed Margin Payment*;
8.4.1.3. If NEMMCO deny the *Deemed Margin Payment*, then the FPNP will be liable for the margin payment as per usual processes;

8.5. Involuntary

8.5.1. There are some instances when the underlying futures contract can be closed out by the CP, and the FPNP is left without a hedge position at short notice (eg, if a distressed FPNP is defaulting on other positions held with the same CP, then the CP may close out all positions, in all sub-accounts);
8.5.2. In the instance that this occurs, the CP is bound by contract addendum (see s1.2.2) to inform NEMMCO of the termination of the position;
8.5.3. In the instance where the CP does not provide termination information, they will still have been bound by contract to provide end-of-day position updates, and if that email is not received (due to close-out of position) or contains information indicating that the futures position relating to FOA has changed in any volumetric way, then it will be treated as an involuntary termination of FOA;
8.5.3.1. Note: There may be some cases where the CP does not provide information as requested and agreed. Based on the above criteria, this will be treated as an involuntary termination and could lead to a default event. This places heavy obligation on the FPNP to ensure their contract with the CP contains clauses relating to the provision of information, and will prevent NEMMCO being delayed in their responses to true default events;
8.5.4. In any case where the involuntary termination of FOA occurs, an immediate MCL review is issued to the FPNP to provide increased credit support, or a replacement FOA or reallocation if accepted by NEMMCO, within 23 hours (the call notice would go out by 1pm on day of involuntary termination, and it must be met by 11:00am the following day) of the involuntary termination;
8.5.4.1. Involuntary termination can be indicated by:
8.5.4.1.1. Receipt of information from FPNP;
8.5.4.1.2. Receipt of intra-day notification from CP relating to change in futures position relating to FOA;
8.5.4.1.3. Receipt of end of day communication from CP notifying a change in the futures position relating to FOA;
8.5.4.1.4. Lack of receipt of end-of-day communication from CP;
8.5.4.1.5. Lack of margin payment from CP or retailer, in the absence of a pre-agreed waive;
8.5.5. If increased credit support is not provided within the prescribed timeframes, then a default event is instigated;
8.5.5.1. In the case where involuntary termination has been assumed due to lack of information being received from the CP, the requirement for alternative credit support can be met by an email being received from the Clearing Participant stating that the futures contract position is still in place with no changes to the FPNP's position relating to the FOA;
8.5.5.2. This will allow errors in communication to be corrected prior to the commencement of a default event;

A.3.2 Proposed FOA Model 2

This is the “Model 2” arrangement, where, in brief, money in the SDA account is held until the end of the quarter (to which the futures contract relates), is not applied against bills, and the value is returned, to the greater of FLP and DSPt, if the futures price falls off and the FPNP’s TO<TL.

Futures Offset Arrangement Request and Registration

Parties

1. Direct Retailer FOA

1.1. Contractual arrangement is between:

1.1.1. SFE Clearing Participant (CP); and

1.1.2. NEM participant who is a party to a futures contract and uses it to enter into the FOA (FOA Party NEM Participant, or FPNP). A FPNP is registered in the NEM (typically as a Market Customer).

1.2. There is a contractual arrangement between the CP and the FPNP with regards to the futures position. Included in the contract must be clauses relating to the provision of accurate and timely information to NEMMCO as required under the Rules. Rules will have to be amended to include NEMMCO’s requirements;

1.2.1. The change to contract containing the undertaking to provide accurate and timely NEMMCO would normally be an addendum to the Clearing Agreement between FPNP and CP;

1.2.2. A standard form contract addendum will be developed by NEMMCO, included in NEMMCO’s Procedures, and given force under the National Electricity Rules (Rules), to include:

1.2.2.1. Undertaking that the cashflows arising from futures contracts under FOA will not be netted against other cashflows relating to positions the FPNP holds with the CP;

1.2.2.2. Obligation that CP provides information on variation of contracts and positions relating to FOA to NEMMCO in a timeline agreed with NEMMCO and in a form prescribed by NEMMCO;

1.2.2.3. Undertaking by CP to provide accurate and up to date information in a timely manner regarding all communications with NEMMCO;

1.2.2.4. Undertaking by CP to provide notification of updated prices if the SFE published settlement price is incorrect on any day for any reason;

1.2.3. If possible, there is to be a side letter from the CP to NEMMCO, specifying and agreeing to the terms in the addendum;

1.2.3.1. This options needs to be investigated, we do not know whether CPs will agree to this clause;

1.3. NEMMCO will be given the right to perform random audits on contracts and futures positions covered by FOA, and will be able to terminate FOAs that do not comply with Rules and Procedures;

1.3.1. Significant penalties would be imposed on FPNP if they are found to be providing inaccurate information and/or not complying with the Rules regarding FOA. A relevant Rule change to enforce this may have to be implemented.

FOA Registration Timeline

2. Registration Timeline

2.1. FOAs can be lodged by the FPNP, up to 90 days before the start of the quarter to which the underlying futures contract relates (*Lodgement Date*);

2.1.1. FOA must be lodged prior to close of the SFE markets (appx 4:30pm) on the *Lodgement Date*;

2.2. The end of day *Lodgement Date* Futures Settlement Price is the *Futures Lodgement Price* (FLP);
2.3. The following business day is the FOA *Effective Date;*

2.4. From the *Effective Date*, NEMMCO require two business days (*Processing Period*) to calculate the change in MCL, and the updated MCL level is implemented in line with current arrangements under the Rules;
  2.4.1. The *Processing Period* will be 2 business days at the start of the quarter;
  2.4.2. NOTE: The MCL reduction will occur in the quarter to which the futures contract relates; ie. If a FOA for Q409 is lodged 90 days prior, the MCL reduction will only come into effect on 1/10/09.

2.5. FOAs can be lodged any time up to the end of the quarter to which the underlying futures contract relates but will be subject to the *Processing Period* before the MCL can be reduced;

2.6. Expiring FOAs will need to be replaced with alternative credit support, or another FOA, in line with the existing Rules for replacement credit support;
  2.6.1. Existing arrangements for replacing expiring credit support are 7 days for "same pattern" replacements, and 30 days for a variation (including new Reallocation Arrangements).

Elements of FOA

3. FOA Elements

3.1. Term
  3.1.1. *Lodgement Date*
  3.1.2. *Termination Date*
    3.1.2.1. The Termination Date would normally be expected to fall on the Futures contract expiry date;
    3.1.2.2. See point 4 below for more information on the Termination Date;

3.2. Futures contract specifications;
  3.2.1. Futures contract region;
  3.2.2. Product code as referenced by exchange;
    3.2.2.1. Contract Term;
    3.2.2.2. MWhs per futures contract;
    3.2.2.3. Load shape –Baseload only permitted;
  3.2.3. Quantity of futures contracts;
  3.2.4. FLP;
    3.2.4.1. FLP will be determined automatically by NEMMCO as per point 2.2 above;
    3.2.4.2. NEMMCO will have the capacity to re-process the FLP if there has been an error in the published Settlement Price;
      3.2.4.2.1. To assist with re-processing procedures, NEMMCO will request to be added to the SFE mailing list regarding price corrections;
      3.2.4.2.2. Updated prices must be received by 8:00am on the day following the error for the correction to be enacted by NEMMCO on that day;
      3.2.4.2.3. If the corrected prices are received after 8:00am, then the correction will be implemented as soon as practically possible by NEMMCO.

Termination Date

4. The *Termination Date* is the date from which the FOA is no longer in effect. There are four scenarios under which the FOA may become terminated:

4.1. Expiry;
4.2. Voluntary;
4.3. No Margin Payment; or
4.4. Involuntary;

These scenarios are covered in more details under the heading "Termination" in s8 below.

Conditions for FOA Registration

5. Conditions:

5.1. Existence of underlying futures contract, that has been set up under a separate client sub-account with clear, unencumbered access to cashflows and with no netting of FPNP positions;

5.1.1. Details of the futures contract will be forwarded to NEMMCO in line with the agreement in point 1.2.2 above;

5.1.2. Note: whilst CPs are generally able and willing to set up client sub-accounts, and maintain independent cashflows for the sub-accounts, in times where the counterparty is defaulting on one sub-account, most CPsare likely to close out the positions in all sub-accounts. This results in a lack of certainty around cashflows from FOA when the FPNP is financially distressed; For clarity:

5.1.2.1. Under normal operation, The FPNP would have one client sub-account containing the futures positions relating to FOA, and another sub-account relating to futures positions not covered by FOA. When money was owed on the FOA sub-account, that money would be paid without being netted off the non-FOA sub-account, leaving unencumbered cash flows;

5.1.2.2. If, however, the FPNP defaults on the non-FOA sub-account while expecting a margin payment from the FOA sub-account, it is anticipated that the CP would close out *all* positions that the FPNP holds with the CP, and would not make the margin payment expected on the FOA sub-account. As it is anticipated that a FPNP would only default on their futures positions in times of financial distress, this circumstance would result in a distressed NEM Participant having a reduced MCL and no firm cashflows supporting the reduction;

5.1.2.3. Alternatively, the FPNP may establish a sole purpose futures clearing account, just for FOA contracts, with a CP that does not clear any other futures contracts for the FPNP. This quarantines the FOA cashflows.

5.1.3. The FPNP must provide NEMMCO with information regarding the CP arrangement, i.e. whether they have a separate sub-account with one CP who holds non-FOA positions for the FPNP, or whether they have a CP who holds only FOA-related futures contracts, as the β factor may be affected by the CP agreement;

5.2. FPNP commits not to sell or otherwise dispose the futures contract, except on an expiry date specified in the terms of the FOA and with alternative credit support in place prior to closing out of futures position;

5.2.1. Termination on a date that is different to the specified termination date is covered in more detail under the heading “Termination” in S9 below;

5.3. FPNP undertakes to make futures margin payments relating to the FOA to NEMMCO;

5.3.1. Margin payment calculations are to be processed by NEMMCO and forwarded to the FPNP and the CP;

5.3.2. The FPNP may make the payment themselves, or may nominate their CP to make the margin payment to NEMMCO, determined by a one-off nomination at the commencement of the FOA;

5.3.3. The Austraclear counterparty must be notified to NEMMCO in advance;

5.3.4. NOTE: this payment is to be a mirror of SFE margins, not an assignment of SFE margins, a legal distinction which may help reduce the risk of clawback.

5.4. If, after the futures margin payment is taken into account, the Participant’s Total Outstandings (TO) are greater than the revised TL, then the breach must be rectified in accordance with existing prudential procedures.

Margin Payments and Timeline

6. Margin Payments

6.1. Margin Payments to NEMMCO need only reflect the increases beyond the maximum of the FLP or the DSPh.

6.2. DSPh is the highest price that the futures contract has reached since being registered. If, however, DSPh>DSPt (i.e. the previous day's settlement price), then DSPh can be reset to DSPt. The FPNP must instruct NEMMCo of the reset and request a SDA refund during business hours, NEMMCO would then process the reset and refund at the first practicable opportunity.

6.3. The FPNP can then receive a refund from the SDA, to the higher of the FLP or DSPt (ie. the previous day's settlement price) if the market falls,, on the condition that TO<TL;

6.3.1. For Example: If the FLP is $40/MWh, and the futures price rises to $60/MWh, then NEMMCO will receive a margin payment for the $20/MWh increase. If the price then drops to $50/MWh, the FPNP can instruct NEMMCO to reset DSPh to $50, and receive a return of the margin of $10/MWh. This return of funds is conditional on TO<TL. If the price then increases to $55/MWh, NEMMCO will receive a margin payment of $5/MWh, which is the price increase above the new DSPh of $50/MWh.

6.4. Margin Payments will be made on *Calculation Days* which are futures exchange business days. The first *Calculation Day* is the day after the *Effective Date* of the FOA; ie.

D1 = *Lodgement Date*
FLP = settlement price on *Lodgement Date*
D2 = *Effective Date*, and there is no margin payment as there is no movement in prices until the end of D2
D3 = first *Calculation Date* where margin payments for change in settlement prices between D2 and D1 are paid

Note: Futures Exchange business days are not the same as NEM business days. NEM Business days are Mon-Fri, excluding national public holidays. There may therefore be days when prudential requirements increase and there are no margin payments from the SFE due to differing "business days

6.5. Positive margins will be held by NEMMCO until the expiry of the FOA, and will not be used to pay bills as they fall due.

6.6. Timeline

6.6.1. The first Margin Payment will be made on the first day that has a positive margin after (but not including) the FOA *Effective Date*;

6.6.2. NEMMCO provides a daily clearing statement to the FPNP by 8:00am on the *Calculation Day*;

6.6.2.1. If DSPh>DSPt, then the FPNP may instruct NEMMCO to reset the DSPh to DSPt by 8:00am on the *Calculation Day*, if TO<TL;

6.6.3. The Margin Payment must be transacted and cleared by 11:00am on the same day;

6.6.3.1. Margins must be paid to NEMMCO's security deposit account (SDA), by either the FPNP or the CP, as nominated in S5.3;

6.6.3.2. NEMMCO pays back margins when margins are negative, to the higher of DSPh or the FLP, and only when TO<TL;

6.6.3.3. The final payment is to be made the day after the *Termination Date* for movements on the *Termination Date*;

6.6.4. If payment is not cleared by 11:00am on the *Calculation Day* then by 1:00pm on the same day, a call notice will be issued by NEMMCO;

6.6.4.1. Note: under the current Rules, a call notice must be issued by 12:00pm for a default event to be instigated the following day. The Rules may need to be changed to allow default events to be initiated on the day following a 1:00pm call notice;

6.6.5. If there is no response to the call notice by 12:00pm on the day following the notice, then NEMMCO may instigate existing default proceedings.

6.7. Calculation of Margin Payments

6.7.1. Margin Payment = Max[(DSPt – Max (FLP, DSPh]) x FQ, 0]
where;
DSPh = previous highest daily settlement price for futures contract since *Effective Date* during the NEM outstanding period, or, if it has been reset, the reset value
DSPt = official daily futures contract settlement price as at close of business immediately prior to calculation day
FQ = Quantity of futures contracts x energy covered under each FOA futures contract
FLP = Futures Lodgement Price

6.8. There is a further consideration regarding margin payments, that the value derived from the margin payments, relating to futures price movements, does not reflect the physical market price movements. i.e. There may be circumstances where the margins from the FOA do not cover the increases in TO arising from the spot market.

6.8.1. A solution is to adjust the margin payments calculated by NEMMCO by a 'shortfall equation' which would equal zero when sufficient cashflows arise out of the FOA margin payments;

6.9. When the 42-day MCL period straddles the end of the quarter, the FOA margin payment need only apply to the portion of MCL that is in the quarter to which the FOA relates.

6.10. DSPh resets

6.10.1. The DSPh will be reset upwards when the DSPt>DSPh.
6.10.2. DSPh will be reset downwards when DSPh>DSPt, the FPNP instructs NEMMCO to reset DSPh to DSPt, and if the FPNP's TO<TL.

6.11. Settlement

6.11.1. NEMMCO uses the amount in the security deposit as a security deposit only, unless otherwise agreed by NEMMCO and the FPNP;
6.11.2. NEMMCO to ensure it holds accumulated margin payments to cover the difference between the FLP and highest official settlement price (i.e. DSPh, taking DSPh resets into account);
6.11.3. Additional funds in the SDA will be returned when the period to which they apply have passed, if they have not been used as payment against the Participant's Total Outstandings;
6.11.4. All interest accrued by NEMMCO whilst holding the margin payments will be returned to the Participant as per the usual process for returning interest from security deposits;
6.11.5. SDAs for FOAs will be put into overnight cash accounts (instead of in term deposits as SDAs for existing operations are held) as the SDA may be paid back if a DSPh reset occurs.

MCL Reduction

7. MCL calculation:

7.1. MCL = P x VF x EL x Tcp x LF x (GST+1)
For load-only Participant with no reallocations

Where:
P = average historical price used in MCL calculation
VF = volatility factor
EL = load estimate
FL = load under FOA
FLP = futures lodgement price
Tcp = credit time period, which is 42 days unless the Participant has requested a RMCL, in which case Tcp is 28 days
Trp – the reaction time period, which is 7 days
LF = loss factor

7.2. MCL Reduction = MIN[β,1] * Max [(P x VF – FLP) x FL x (Tcp-Trp),0]

Where:

β is a risk adjustment factor between 0 and 2, applied to the MCL reduction to account for the risk impact (positive or negative) to the prudential framework arising due to the introduction of FOAs when compared to:

7.2.1. The existing prudential framework including RMCL and reallocations; and

7.2.2. An unconditional bank guarantee

7.3. When the 42-day MCL period straddles the end of the quarter, the MCL reduction only applies to the period which is covered by the FOA.

7.4. The MCL reduction applies only in the period to which the futures contract relates. Ie. If a FOA is lodged in Q409 for a contract that expires in March 2010, the MCL reduction is applicable only from 1 Jan 2010.

Termination of FOA

8. The *Termination Date* is the date from which the FOA is no longer in effect. There are four scenarios under which NEMMCO may terminate the FOA;

8.1. Expiry;
8.2. Voluntary;
8.3. No Margin Payment; or
8.4. Involuntary.

The procedures following termination and the circumstances under which termination is allowed (if any) are outlined below:

8.1. Expiry

8.1.1. Futures contracts stop trading at the end of the quarter to which they relate and expire on the 3rd business day after the end of the relevant quarter (eg, a Q109 futures contract expires on the 3rd business day after close of trading on 31 March 2009). A final Cash Settlement Price (in effect, a final daily Settlement Price) is confirmed by the SFE on the 3rd business day of the relevant quarter, based on the average pool price for the quarter as instructed by NEMMCO to the SFE on the 1st business day after the end of the quarter;

8.1.2. A FOA would normally terminate when the futures contract expires, at which point (or prior to this day) further FOAs will have to be lodged or bank guarantee will have to be provided;

8.1.3. Alternative support must be provided before the expiry of the futures contract, in line with existing Rules for replacement credit support;

8.1.3.1. Existing arrangements for replacing expiring credit support are 7 days for “same pattern” replacements, and 30 days for a variation (including new Reallocation Arrangements)

8.2. Voluntary;

8.2.1. Prior to the expiry of the futures contract, a Participant may decide they want to terminate the FOA for any reason;

8.2.2. They must provide written/system notice to NEMMCO of their intention to terminate the FOA;

8.2.3. They must provide alternative credit support at least 10 days prior to the intended termination date;

8.3. No Margin Payment;

8.3.1. As outlined in the Margin Payments and Timeline section, NEMMCO provides a daily clearing statement to the FPNP and CP by 8:00am, and the Margin Payment must be transacted and cleared by 11:00am on the same day;

8.3.2. If NEMMCO does not receive a Margin Payment as expected, they issue a call notice on the calculation day at 1:00pm;

8.3.3. If the FPNP does not meet the call notice by 11:00am the following day, a default event will be instigated;

8.3.4. For clarity;

8.3.4.1. Between D1 and D2 there is a positive settlement price movement resulting in a margin payment coming due to NEMMCO;

8.3.4.2. By 8:00am on D3 NEMMCO issue a statement to the FPNP relating to the D1-D2 price movement;

8.3.4.3. By 11:00am on D3, the FPNP must make the margin payment;

8.3.4.4. If there is no payment forthcoming, then at 1:00pm on D3 NEMMCO to issue a call notice;
8.3.4.5. The FPNP must meet the call notice by 11:00am on D4;
8.3.4.6. If the notice is not met, then default proceedings begin at 12:00pm on D4;

8.4. Deemed Margin Payment agreed in advance;
8.4.1. If a FPNP has sufficient funds in their SDA to cover a margin payment requirement (eg, in the instance where they have made an advance payment in anticipation of future price movements), and remain within their TL, the FPNP may request NEMMCO allow a *Deemed Margin Payment* and not be liable for the agreed value;
8.4.1.1. This arrangement must be requested in advance, or it will be considered as per S8.3 above, and could lead to a default event;
8.4.1.2. The FPNP can request that NEMMCO agree to take a *Deemed Margin Payment*, but it is at NEMMCO's discretion whether to accept a *Deemed Margin Payment*;
8.4.1.3. If NEMMCO deny the *Deemed Margin Payment*, then the FPNP will be liable for the margin payment as per usual processes;

8.5. Involuntary
8.5.1. There are some instances when the underlying futures contract can be closed out by the CP, and the FPNP is left without a hedge position at short notice (eg, if a distressed FPNP is defaulting on other positions held with the same CP, then the CP may close out all positions, in all sub-accounts);
8.5.2. In the instance that this occurs, the CP is bound by contract addendum (see s1.2.2) to inform NEMMCO of the termination of the position;
8.5.3. In the instance where the CP does not provide termination information, they will still have been bound by contract to provide end-of-day position updates, and if that email is not received (due to close-out of position) or contains information indicating that the futures position relating to FOA has changed in any volumetric way, then it will be treated as an involuntary termination of FOA;
8.5.3.1. Note: There may be some cases where the CP does not provide information as requested and agreed. Based on the above criteria, this will be treated as an involuntary termination and could lead to a default event. This places heavy obligation on the FPNP to ensure their contract with the CP contains clauses relating to the provision of information, and will prevent NEMMCO being delayed in their responses to true default events;
8.5.4. In any case where the involuntary termination of FOA occurs, an immediate MCL review is issued to the FPNP to provide increased credit support, or a replacement FOA or reallocation if accepted by NEMMCO, within 23 hours (the call notice would go out by 1pm on day of involuntary termination, and it must be met by 11:00am the following day) of the involuntary termination;
8.5.4.1. Involuntary termination can be indicated by:
8.5.4.1.1. Receipt of information from FPNP;
8.5.4.1.2. Receipt of intra-day notification from CP relating to change in futures position relating to FOA;
8.5.4.1.3. Receipt of end of day communication from CP notifying a change in the futures position relating to FOA;
8.5.4.1.4. Lack of receipt of end-of-day communication from CP;
8.5.4.1.5. Lack of margin payment from CP or retailer, in the absence of a pre-agreed waive;
8.5.5. If increased credit support is not provided within the prescribed timeframes, then a default event is instigated;
8.5.5.1. In the case where involuntary termination has been assumed due to lack of information being received from the CP, the requirement for alternative credit support can be met by an email being received from the Clearing Participant stating that the futures contract position is still in place with no changes to the FPNP's position relating to the FOA;
8.5.5.2. This will allow errors in communication to be corrected prior to the commencement of a default event;