



29 April 2010

Dr John Tamblyn  
Australian Energy Market Commission  
PO Box A2449  
SYDNEY SOUTH NSW 1235  
Emailed: submissions@aemc.gov.au

Dear John,

The draft AEMC FOA MCL calculation formula (The Formula) requires amendment because it contradicts the risk assessment of FOAs by the independent risk expert and threatens to limit the substantial efficiency gains for the NEM offered by the implementation of FOAs. A simple fix to The Formula is provided below. This submission highlights how The Formula (if left unamended) would risk undermining the achievement of the NEO by perpetuating unnecessary and extreme competition disadvantages against independent NEM retailers (in comparison to vertically integrated Gentailers) and wider risks to participants in the NEM derivative market. An efficient FOA implementation will be critical when NSW retailers are privatised and tax payer funded Credit Support to AEMO is withdrawn.

The Formula requires amendment because:

1. **The Formula places prohibitive inefficiency and costs on users of FOAs.** The Formula artificially limits FOA MCL efficiency gains to a tiny fraction of the offset "rewards" that AEMO gives for ex ante reallocations. This outcome directly contradicts the risk advice and recommendations provided by the independent risk expert (PWC) appointed by the AEMC<sup>1</sup>. This will result in unnecessarily high collateral requirements and working capital costs for independent retailers, resulting in reduced retail competition and artificially high electricity costs being passed through to consumers of electricity. Back testing of The Formula from 2005 to 2010 provided by d-cyphaTrade to AEMC graphically demonstrates this inefficiency. Under FOAs (ignoring variation margin payments to AEMO), a retailer would be forced to post to AEMO on average 92% more Credit Support (i.e. less efficient for a retailer) than under ex ante reallocation. Additionally, independent retailers would be forced to post 322% more Credit Support to AEMO under an FOA than an equivalent incumbent Gentailer, assuming Credit Support requirements for Gentailers is lifted from zero (as it is currently) to 1 Prudential Margin worth of Credit Support.
2. **The Formula ignored the extensive benefits of utilising futures markets, beyond just those benefits to AEMO.** As PWC reported, **futures reduce credit risk while ex ante reallocations merely transfer credit risk** to other [risky] off-market reallocation OTC deals between NEM Participants. An increased utilisation of centrally cleared electricity futures by NEM Participants, encouraged by increased FOA uptake would lead to NEM-wide credit risk reduction efficiencies. In particular, if FOAs are introduced efficiently, NEM Participants would be encouraged to migrate their risky off-market full face value reallocation OTC derivatives (currently a commercial imperative to offset default risk transferred from

---

<sup>1</sup> The PWC Review (Feb 2010) reported to the AEMC that there was no more risk to AEMO arising from the implementation of FOAs than from existing ex ante (energy) reallocations. Additionally, the PWC Report showed that FOAs created less unfunded margin call exposure to AEMO than (existing) Reduced MCL arrangements.

AEMO to other NEM Participants via reallocation) to the centrally cleared futures market. Increased hedging via futures rather than OTC hedging mitigates the risk of a generator outage and/or contract default triggering a domino-style credit default collapse of other NEM Participants. Unfortunately for the NEM, The Formula threatens to ensure the opposite outcome.

3. **The Formula is anti-competitive against the futures market and anti-competitive against independent retailers.**

**The Formula is anti-competitive against the futures market** by preventing the electricity futures market from competing equally against the existing AEMO ex ante reallocation derivative market or as a substitute to anti-competitive vertical integration (merging with a generator) through a robotic imposition of an additional “penalty and cost” on users of futures based offsets. This threatens to deter many retailers from using FOAs (and futures) and represents preferential treatment of AEMO reallocation derivatives in comparison to futures. The absence of Rules supporting FOAs to date has almost certainly resulted in futures market liquidity (and related risk reduction efficiencies) being replaced by riskier off-market reallocation hedging, due to AEMO reallocations enjoying a monopoly on MCL offsets for retailers. The draft requirement for FOAs to include a Power of Attorney over the retailer’s futures account also appears to be a form of competitive discrimination against FOAs because retailers with a reduced MCL arrangement, reallocated retailers and/or generators are not required to provide a similar Power of Attorney over their *equivalent* off-market (OTC) hedge receivables. If AEMO commences operation of a “Swaps and Options” reallocation derivative clearing house (as effectively endorsed by AEMC), AEMO-facilitated derivatives will further undermine liquidity for futures. AEMO’s swaps and options market can compete unfairly for hedge liquidity from retailers and generators by differentiating AEMO’s derivative market as a safe haven from regulatory requirements normally required of a licensed futures market and Clearing and Settlement Facility e.g. open access, daily margining, Clearing Participant support, ASIC supervision and trade transparency obligations.

**The Formula is anti-competitive against independent retailers** because:

- a. It limits the ability for independent retailers to utilise the futures market to compete on a more level playing field against Gentaillers that receive a massive competitive advantage by the current (and AEMC-proposed) MCL methodology. Under The Formula and the AEMC’s recommended increase to Gentailler MCLs, an independent retailer with a FOA would have to post 322% more Credit Support (historically) than a Gentailler with the same retail load. **Gentaillers post zero credit support** against their retail load if they own a power station of equivalent load. Even under proposals in the AEMC Draft Report, Gentaillers will only be required to post 1 Prudential Margin (i.e. 1/6<sup>th</sup> of the normal credit support and only half of that required under reallocation) to AEMO. This preferential Credit Support treatment is granted to Gentaillers despite Gentaillers not being required to commit to generate in the future and without the requirement to have unpaid generation receipts owing to them from AEMO (albeit this is also true of generators registering ex ante reallocations with AEMO). Even generation in a different region to the Gentailler’s retail load creates a generous automatic Credit Support offset;
- b. **Base load, same-region generators maintain their market power and price setting ability** in the reallocation market without competition from the futures market. This results in higher costs to retailers and their consumers;
- c. Generators maintain their market power (and pricing control) in the wider OTC hedge market as futures liquidity is crowded out by trading in reallocation derivatives which are preferentially treated by AEMO.

These outcomes will result in retailers and the wider NEM being commercially coaxed into holding more potentially toxic OTC credit default risk rather than centrally cleared and regulated hedge products.

#### 4. **The Formula is contrary to derivative market regulatory reform.**

The Formula defies best practise derivative risk management principles and regulatory reform initiatives borne from the obvious and catastrophic failure of OTC markets during the Global Financial Crisis (GFC) of 2008 – 2009 and the US and European OTC energy market credit default implosion of the early '90s. Specifically, The Formula commercially deters trading on centrally cleared and regulated exchanges and “rewards” trading (and position taking) in competing OTC derivatives. This is in exact contrast to OTC regulatory reform being progressed internationally<sup>2</sup> The US Federal Reserve is seeking to force all standardised OTC trading onto licensed clearing houses and to require OTC counterparties holding non-standard OTC derivative positions to post additional credit support and margining than that required by clearing houses due to the increased credit default risk of OTC derivatives. The US Federal Reserve has stated that it will aggressively seek uniform implementation of similar OTC market reforms by international derivative regulators.

#### **The Solution: Implement the more efficient FOA Formula recommended by The Independent Risk Expert; or amend the AEMC Formula (as below).**

Both the PWC recommended FOA formula and The DCT Amended Formula (see below) would substantially rectify the competition issues created by The Formula. The DCT Amended Formula involves a simple amendment that would guarantee that:

1. FOAs would always result in at least 2 Prudential Margins worth of Credit Support to AEMO, thereby more than satisfying the practical intent and rationale of “Prudential Margin”; and
  - a. FOAs never result in less Credit Support to AEMO than reallocations;
  - b. FOAs never result in less than twice the (proposed) Credit Support from Gentailers;
  - c. Since Q2 2005, FOAs would have (on average) resulted in 50% more Credit Support than reallocations and 199% more credit support than Gentailers.
2. The unfair cost impediments and barrier to entry for FOAs are reduced, maximising competition benefits by allowing independent retailers and a vastly greater number of suppliers of offset arrangements to compete on a more level playing field. This will encourage the utilisation of FOAs and optimise efficiency gains (reduction in NEM-wide credit risks and operating costs) which can be passed on to achieve lower priced electricity supply for consumers.

DCT Amended Formula for calculating MCL under FOA load:

$$MCL = \mathbf{MAX} [ [FLP \times E2 \times \mathbf{42\ days} \times LF \times (GST + 1)], P \times VF \times E2 \times \mathbf{2} \times Trp \times LF \times (GST + 1) ]$$

Where formula components are as defined in the AEMC Draft Report p.126 “MCL Calculation”. Hence Credit Support (i.e. MCL) under FOA = the **MAXIMUM OF**:

- a. the Futures Lodgement Price (FLP) across 42 days (i.e. not just 35 days); or
- b. 2 times the Prudential Margin.

Clause 3.3.10 of the NER “Trading Limit” will need to be amended such that for the purposes of FOAs, a **deemed Prudential Margin** equal to 2 standard Prudential Margins is deducted. This ensures that *2 Prudential Margins of Credit Support is quarantined from the Trading Limit at all times*. This lower Trading Limit under FOA is not prohibitive due to the additional cash flow support to the retailer from positive cash flow benefits (if prices rally) from their underlying futures position. Futures cash flows to the retailer are linked to the Futures Lodgement Price (i.e. Credit Support) and hence also linked to the value of the Trading Limit.

---

<sup>2</sup> See [http://www.financialstability.gov/latest/tg\\_05132009.html](http://www.financialstability.gov/latest/tg_05132009.html) explaining the US Federal Reserve Financial Services Reform Bill (currently before the US Senate) to force OTC trading onto licensed clearing houses.

The following table shows the average excess of Credit Support under the DCT Amended Formula<sup>3</sup> compared to exante reallocation, Gentailer MCL, PWC-recommended FOA formula and The Formula suggested in the AEMC Draft Report. With the more efficient DCT Amended Formula, Credit Support under FOAs is normally much larger and/or is never less than Credit Support under reallocations.

FOA Formula type	Average MCL \$/MWh	Excess Credit Support (burden) on FOA retailer compared to reallocation
<b>1. DCT Amended Formula</b> (MAX of 6 weeks of FLP or 2xPM)	54.56	50%
2. FOA with 6 weeks of FLP but no PM minimum	49.94	37%
3. PWC FOA model: 5 weeks of FLP + 1 PM	59.84	64%
4. AEMC's The Formula: 5 weeks of FLP + <b>always an extra [1 PM + (PM-FLP)]</b>	69.93	<b>92%</b>
<b>Exante reallocation (2 x PM)</b>	36.44	
<b>Gentailer</b>	18.22	<b>[AEMC's] The Formula = 322% more FOA Credit Support than Gentailer</b>

FOAs under the DCT Amended Formula would have been commercially viable (i.e. creating a credit support offset efficiency) for 90% of all quarters (and futures regions) since Q2 2005.

d-cyphaTrade remains available to assist the AEMC wherever appropriate to ensure efficient implementation of FOAs.

Yours Sincerely,



Dean Price  
General Manager

**Glossary of Terms**

- AEMC.** Australian Energy Market Commission.
- AEMO.** Australian Electricity Market Operator.
- FOA.** Futures Offset Arrangement.
- Gentailer.** A retailer who controls or owns (an equivalent capacity) generator. This type of market structure risks creating anti-competitive market outcomes due to crowding out of transparent hedge markets, lack of efficiently priced hedge contract availability to independent participants and increased physical spot market control and spot market gaming incentives.
- MCL.** Maximum Credit Limit.
- NEM.** National Electricity Market.
- NEO.** National Electricity Objective.
- PM.** Prudential Margin, equivalent to 1 week worth of the 6 week MCL.

<sup>3</sup> Using historical quarterly MCL data and Futures Lodgement Prices as at the day prior to commencement of the quarter (Q2 2005 to Q1 2010). Credit Support calculations do not include futures variation margins paid to AEMO. Calculations ignore GST and loss factor.