Rachel Houston
Australian Energy Market Commission

By web submission

Thursday 19 November 2013

Dear Rachel,

Re: NEM financial market resilience – Ref EMO0024

GDF Suez Australian Energy (GDFSAE) appreciates the opportunity to comment on the above review.

GDFSAE owns and operates 3,540 MW (gross) of renewable, gas-fired and brown coal-fired generating plants in Victoria, South Australia and Western Australia, and owns the Simply Energy second tier retail business with more than 340,000 customers across the National Electricity Market. The business is part of the Energy International business line of the GDF SUEZ group which has a strong presence in its markets with 78 GW gross (41.9 GW net) capacity in operation and a significant programme of 5.5 GW gross (3.5 GW net) capacity of projects under construction as at 30 June 2013.

Financial contagion and systemic risk

GDFSAE believes that the AEMC have identified the three main channels through which market participants are financially interconnected, as being through:

- wholesale spot market settlement via AEMO,
- electricity futures and options via the ASX, and
- bilateral over-the counter (OTC) hedge contracts.

The AEMC Options Paper (Options Paper) notes that the settlements process does not create a significant financial contagion risk due to the substantial prudential requirements of participating in the NEM. Further, the Options Paper suggests that contracts traded via the ASX do not cause financial contagion, as there is no direct financial relationship between participants. Whilst GDFSAE agree that the settlement process and ASX traded contracts do not create a direct relationship between participants, these processes do impose risks onto participants which must be managed.

Participants in the NEM face market risk as a result of participation in the NEM market, through exposure to volatile spot prices. This is the primary source of risk faced by participants.

OTC's are one of the instruments which enable participants to manage their market risk exposure. Although it is true that entering into an OTC involves some risk of its own (credit risk), the primary source of risk faced by participants is the market – not the OTC. If OTC contracts did not represent a reduced risk position for the participant compared to the spot market, then participants would not enter into OTC's.

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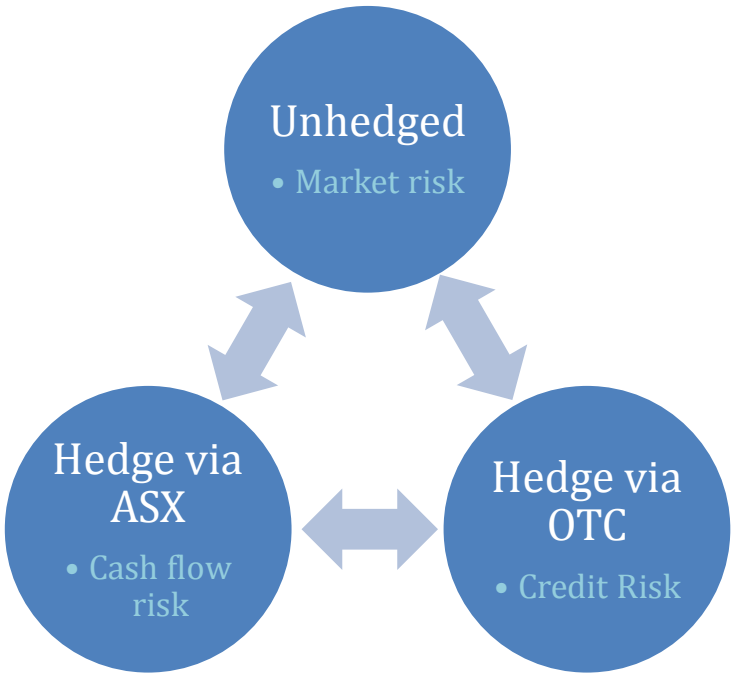
The AEMC Options Paper suggests that the potential for financial contagion arises through OTC contracts, rather than the other forms of risk.

If participants fail to manage their market risk or their cash flow (ASX contract) risk, there will be an increased potential for that participant to suffer a financial failure event. It is therefore important that the AEMC recognise that participants manage risk within each of these segments, and that there are trade-offs between them, as indicated in the following diagram:



The principle risk faced by all NEM market participants is the market risk from exposure to the wholesale spot price. Because the spot price is very volatile, virtually all participants need to reduce this market risk exposure. The two primary means for managing the market risk exposure are through OTC hedging contracts, or through hedge contracts traded on the ASX.

The key point to note is that whatever combination of these risk positions a participant may choose, it cannot eliminate the risk of operating in the NEM. It can however, move the risk to a position that it believes to be optimum. The decision of what represents an optimum risk position for any given participant is determined through a detailed consideration of a number of complex and sometimes-conflicting business and external considerations. These considerations are not static, and will therefore need to be reviewed and changed on a regular basis.

Given the complex and volatile risk environment that NEM participants operate within, most participants employ risk specialists and market analysts who typically report to a risk committee, to ensure that the business is managing its risks appropriately.

The optimum risk management approach is likely to vary from one participant to another. A range of factors will influence this including their business structure, plant mix, generation / retail balance and financial standing. It is therefore almost impossible to compare one participants risk approach to another, or for an external regulator to carry out an effective comparison.

Participants need to move their risk positions between the three main areas to find the balance that best fits their needs. Imposing regulatory changes into one risk area (OTC's) will force participants to change how they manage risks in all segments. This could have unintended consequences if participants decide that a heavy regulatory burden on OTC's makes them less attractive as a risk management option.

Measuring the materiality of systemic risk

GDFSAE supports the proposed assessment framework as described by the statement on page 44 of the Options Paper, which indicates that the Commission would only recommend the implementation of any of the measures and options discussed in the Options Paper, if it considers that:

- the existing market and regulatory risk management mechanisms are inadequate or could be enhanced, strengthened or supplemented,
- a deficiency has been identified that results in material risk of contagion, and
- implementation of the measure would be likely to promote efficient investment in, and efficient operation of electricity services for the long term interests of consumers of electricity.

This framework is appropriate as it recognises the need to firstly establish that a deficiency exists that results in material risk of contagion, and that a measure is available which will promote the National Electricity Objective (NEO).

The challenge in applying this assessment framework is that there are no simple measures to determine whether the current arrangements are adequate, or if they lead to a material risk of contagion. The AEMC acknowledge that measuring the degree of systemic risk in the NEM is difficult, and will depend on participant behaviour. Therefore, evaluating the efficacy of new measures is problematic, and leaves open the possibility that rather than reducing systemic risk, a new measure may increase systemic risk.

On page 10 of the Options Paper, the AEMC state that in order to assess the potential for financial contagion in the NEM, an evaluation of the following four issues is important:

a) whether market participants are able to correctly identify their level of interconnectedness with other market participants and are able to quantify their potential liabilities of a counterparty default;

b) whether participants are determining their trading credit limits with other market participants to appropriately mitigate the risk of contagion occurring;

c) whether participants are assessing credible stress scenarios to understand how unexpected variations in market outcomes (eg, spot prices, generation capacity) could compound the liabilities incurred with counterparty risk. This checks whether risk management strategies are robust enough to manage the risk of a number of coinciding events (coincidence risk); and

d) whether the level of reserves and available cash flow margins are set accordingly, taking (b) and (c) into account to confirm that the business can survive the impact of another market participant failing.

GDFSAE agrees that any NEM market participant should give careful consideration to each of the above factors in consideration of its risk position, and that participant boards would maintain close supervision of these matters. However given the diverse nature of the various participants in the NEM, it would be inappropriate, if not impossible to establish standard answers to the above questions which might enable an external agency to assess a participants risk management practices.

Another important aspect that the AEMC consideration seems to overlook is that the NEM is a commodity market in which financial markets provide a risk management facility. This is distinct from other financial markets that are being regulated under the G20 framework to avoid a future global financial crisis. Whereas participants in pure financial markets may use derivatives as a speculative instrument, the essential purpose of OTC contracts in the NEM is to enable participants trading the physical commodity (electricity) to hedge their exposure to the spot price market risk.

The AEMC have observed in the Options Paper that the total volume of OTC contracts traded in the NEM is equivalent to 1.6 times the total NEM demand, and the volume on ASX 24 futures is equivalent to 1.9 times NEM demand, giving a total derivative contracts of 3.5 times total demand. The AEMC have asked whether this is evidence of participants and other entities entering into speculative trading.

GDFSAE is not able to confirm whether the multiples suggested in the Options Paper are accurate, but we do acknowledge that the aggregate gross amount of all OTC and ASX contracts is likely to exceed the underlying NEM demand. This occurs due to:

- participants typically have multiple trades with multiple counter parties, some of which balance each other out. Participants adjust their position (e.g. via delta hedging[1]) and enter into new contracts (buying and selling) in response to changes in actual and forecast market and plant conditions for commodities which they are exposed to (e.g. electricity, carbon, gas, coal and green products).
- basis risk between the financial derivatives available for hedging and the financial exposure. For example electricity derivative hedge volumes of greater than 2 times the underlying physical retail demand may be required to hedge a retail exposure in some underlying periods of the year (e.g. Q1).

A more effective measure might be to understand a participant's net financial hedge position, inclusive of all trades with all counter parties. The aggregate of all participants' net positions is likely to coincide more closely with the underlying NEM demand.

The fact that the gross amount of hedge contracts exceeds the underlying demand is evidence of a healthy and liquid contract market, rather than evidence of speculative trading.

Is there a problem?

GDFSAE are not satisfied that a convincing argument has been established that a material risk of contagion exists, or why any change is required. In support of this view, we offer the following comments.

The NEM has been in operation for 15 years and during that time, has been impacted by a wide range of serious disturbances including drought, financial failure of participants, multiple transmission failure, multiple generating unit failure and reserve shortfall. Despite these challenges, there has been no instance in which contagion has led to counter parties being adversely impacted to any serious extent. This track record should give market participants and regulators confidence in the robust nature of the NEM.

The AEMC note that financial intermediaries such as the ASX are subject to stringent regulations regarding risk management, and suggest that NEM participants should perhaps also be governed by similar regulations. However, unlike NEM participants, financial intermediaries have no physical position or asset to back up their contracts. As a result, regulations have been introduced to ensure a prudent level of backing when dealing with such intermediary's.

Although the arrangements for OTC contracts are not subject to the same level of regulation as those traded on the ASX, there are a number of regulatory safeguards in place to protect stakeholders. These measures include AFSL requirements administered by ASIC, prudential requirements administered by AEMO and other obligations imposed by banks and lenders.

All businesses that enter into contracts with other parties take on some form of counter party risk. Businesses manage this risk through a range of measures including checks on the credit ratings and bone fides of their counter parties. Businesses take on these counter party risks in order to achieve a net benefit to the business. It is in the interests of each business to assess the relative benefit of entering into a contract, against the risks that the contract introduces. This decision is one that will be heavily influence by factors that are very specific to the individual business, and would be difficult to standardise or regulate.

In order to inform the discussion on whether OTC contracts impose a material risk of contagion, the energy supply association of Australia, Private Generators Group and the National Generators Forum commissioned analysis and a report by SEED Advisory (SEED report). The SEED report provides a basis on which to consider the question of contagion, and is available on the AEMC website[2].

One of the key points identified in the Seed report is that if a NEM participant should default, the participants OTC counter parties will then be left exposed to the spot market. However the unhedged participant is somewhat protected from sustained high spot market price by the market rules will cap the

[1] Delta hedging is a strategy where the aim is to ensure that the value of a portfolio consisting of one or more hedge positions and the underlying position (hedge target) remains insensitive to small changes in the price of the underlying commodity.

[2] http://www.aemc.gov.au/Media/docs/Consultancy-report-by-Seed-Advisory-61a83f79-d4d6-4444-81c2-2cd990bd6e58-0.PDF

spot price. The participant can also consider entering into new hedge contracts, taking into account the current for forecast contract prices.

The SEED analysis and report demonstrates that:

- There is no case to impose new obligations or restrictions on the OTC electricity derivative markets, based on analysis of the risks to the economy, the financial sector or the NEM.
- The case for mandatory reporting of electricity derivatives is weak. The existing market and regulatory frameworks are robust and suitably transparent.
- Margining reduces credit risk but creates other costs and risks. It is not appropriate for all circumstances and should not be mandated.
    - Margining increases capital requirements and increases cash flow risk but does not mitigate the risk of post default market changes.
    - Three quarters of the potential losses in the 'stress test' analysis arise from changes in the spot and derivative markets post default. Margining has no impact on these.
- Reform proposals should prioritise changes to electricity market design likely to affect the market's performance in the event of a default. For example:
    - Reforming RoLR arrangements.
    - Ensuring a generator is able participate in the market while in administration.
    - Reviewing prudential requirements to making better use of existing risk capital.
- Requiring participants to maintain increased capital is inefficient and poorly targeted. All other options should be preferred to this.

For the reasons outlined above, GDFSAE is not satisfied that a material contagion risk exists, and therefore would recommend that no changes are needed (option 1 in the Options Paper).

Notwithstanding the above, GDFSAE offers the following commentary on the options presented in the Options Paper.

Comment on the options

Calls for increased transparency may be appropriate in financial sectors where a large number of trades are speculative in nature, and transparency does not reveal information about fundamental business parameters. However in the competitive NEM, transparency could become an issue if it were to reveal fundamental business information about the NEM participants. Such exposure of the NEM participant's information could undermine the competitive basis of the NEM.

Removing or regulating OTCs will eliminate (or render less effective) one of the suite of tools available for participants to manage market risk. This will mean that participants will find it harder to manage their market risk, and would therefore increase the chance of participant failure.

Increasing credit support requirements will deter participants (particularly smaller participants) from entering into OTCs, which in turn means that they are less able to manage market risk, and so might ultimately be deterred from entering the NEM. In other words, increasing the regulatory burden of risk management in the NEM will deter participant competition and lead to increased market concentration.

As outlined above, GDFSAE remains unconvinced that any action is necessary, and would therefore support option 1 (no new measures). In response to the other options proposed in the Options Paper, we offer the following comments.

Option 2 – trade reporting

Although trade reporting might be feasible in financial markets where derivative products are largely standardised, it would be extremely difficult and costly to introduce such reporting for electricity derivatives. The largely bespoke nature of electricity derivatives means that it would be difficult to design a reporting framework that could accommodate the different derivatives types, and enable a meaningful interpretation of the overall results.

Even if these problems could be overcome, it is difficult to envisage how a regulator would interpret the results. As outlined above, without a full understanding of each participants full risk position it would not be possible for an independent agency to decide if the reported OTC position was reasonable or not.

Option 3 – stress test reporting

GDFSAE agrees that stress testing of risk management policies and practices is a prudent activity that all NEM participants would be well advised to carry out. However, the option proposed is that an external agency would prescribe scenarios against which all participants would report.

If participants were required to report against a prescribed stress test scenario that did not match well with how that participant was managing its risks, then the participant faces a difficult choice of managing risks in accordance with what it perceives to be its most prudent approach, or defaulting to an approach that aligns more closely with the standardised stress test.

This could lead to a perverse outcome where a participant takes on sub-optimal risk management in order to adhere with the stress test, and in turn, has less effective risk management.

It should be noted that ASIC already has the authority under the AFSL to seek information from participants about their risk management policies and risk positions. If more transparency is the goal, then the existing ASIC powers are available already to provide the relevant information.

Option 4 – code of best practice for NEM participants

Similar to the stress test discussed above, a difficulty with establishing a code of best practice is that it would be very difficult to recognise and accommodate the wide range of business structures and risk management approaches and contracts used by NEM participants. It is therefore likely that a code of best practice would be a simplified, standard approach that would in fact represent a less than optimum approach for many participants.

Another issue with establishing a code of best practice is that once it has been defined, regulators are likely to be asked whether the industry participants are following the best practice methods. The only way that a regulator could be sure that participants are following the code of best practice would be to carry out an audit. The regulator is then faced with the dilemma of what to do if a participants audit reveals that it is not following the code of best practice.

Option 5 – trade reporting + additional margin requirements

Increasing the margin requirements for OTC contracts may reduce the credit risk, but similar to the ASX traded contracts, it will increase the cash flow risk. This is likely to result in participants regarding the OTC's as less attractive, limiting the risk management options available to the market.

Any measure such as this that makes bilateral hedging less attractive to participants will drive participants towards taking on more market risk. Since bilateral contracts are an important driver for market competition, pushing participants away from bilateral contracts is likely to lead to reduced market competition and therefore, higher prices to consumers.

As identified in the Seed Report, the majority of the potential losses from a counter party failure arise in the months following the default as the participant carries increased exposure to the spot market and seeks to re-contract with new counter parties. Increasing margin requirements will not impact on these costs.

Option 6 – stress test reporting + additional supervision and regulatory powers

This option would be the most prescriptive of all, and would likely result in participants finding hedging through OTC contracts to be costly to administer and less effective in meeting their needs. It will therefore lead to less reliance on OTC contracts, and participants carrying greater market risk. Similar to option 5, this option will also result in decreased competition.

Alternative option

As noted above, GDFSAE remain unconvinced that any specific action is warranted and therefore prefer option 1. However, should the AEMC form the view that some measures are necessary, GDFSAE would suggest that an option building on the existing ASIC powers through participant AFSL's would be a more effective approach.

As part of their monitoring powers under the AFSL, ASIC have recently asked NEM participants to complete surveys on their risk management practices. In response, NEM participants have engaged in discussions with ASIC on how to improve the form of the survey so that the information is more relevant and meaningful to ASIC.

GDFSAE is already engaged in this process with ASIC, and believes that this is more likely to lead to a balance between transparency and ensuring the ongoing effectiveness of OTC contracts as an important risk management instrument.

GDFSAE hope that the comments provided in this submission are of assistance to the AEMC in its deliberations, and encourage you to contact Chris Deague if you wish to discuss further.

Yours sincerely,

Chris Deague
Senior Market Specialist