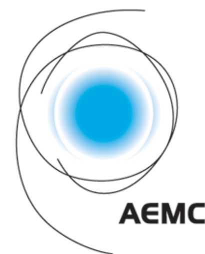

REVIEW

Australian Energy Market Commission

APPENDICES TO THE SECOND INTERIM REPORT

NEM financial market resilience

14 August 2014

Reference: EMO0024
Appendices to the second interim report

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Reference: EMO0024

Citation

AEMC 2014, NEM financial market resilience, Appendices to the second interim report, 14 August 2014, Sydney

About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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A Progress of the review

A.1 The review

COAG Energy Council request for advice

In June 2012, the COAG Energy Council has requested that the AEMC provide advice on the following issues:

- the risks to financial stability in the NEM arising from financial interdependencies between market participants, and the impacts of those risks if they materialise and result in financial instability;
- the existing mechanisms to mitigate risks to financial stability and manage the consequences in the NEM and whether they are adequate; and
- if they are inadequate, recommendations to strengthen, enhance or supplement the mechanisms for minimising the risks and consequences. In this, both preventative and responsive mechanisms should be considered.

Stage one of the review

Stage one of the financial market resilience review focused on measures that seek to mitigate the risks of contagion following the financial distress of a large retailer.

Issues paper - June 2012

Following the COAG Energy Council's request for advice, the Commission released an issues paper in June 2012, outlining our initial views on the nature of the relationships and financial interdependencies between NEM participants and the potential risks that could arise from those interdependencies.

The issues paper set out our initial analysis of examples of scenarios where events could, in certain circumstances, lead to financial contagion that could damage the long term interests of consumers. It also explained the risk management practices that we would expect a prudent generator or retailer to adopt to manage those risks, and the external risk management requirements that those parties are subject to.

Stage one options paper

The issues paper in particular identified that there is a risk that the financial distress of a large retailer could cause financial contagion, affecting other participants and, in the extreme case, risk causing a cascading retailer failure. This risk could be exacerbated by the ROLR regimes. Almost all submitters to the issues paper shared these concerns.

The stage one options paper therefore focused on this scenario and explored potential options for mitigating the risks that could arise following the financial distress of a large electricity retailer.

First Interim Report – June 2013

The First Interim Report contained our draft recommendations to reduce the risk of financial contagion if a large retailer experiences financial distress.

The draft recommendations incorporated two elements:

- changes to the ROLR scheme and AEMO credit support requirements for the ROLR. These are likely to mitigate some but not all the risks of financial contagion; and
- further development and assessment of a comprehensive special administration regime (SAR), which could be triggered instead of the ROLR scheme if one of the largest retailers in the NEM encounters financial distress that is likely to trigger a ROLR event. Additional recommendations included the possibility of interim government funding and improvements to the ROLR cost recovery mechanism.

Stage two of the review

The second stage of our advice is examining other potential sources of financial contagion in the NEM, to assess whether there are any material risks to the stability of the NEM arising from financial interdependencies between market participants.

Stage 2 Options Paper – November 2013

The Stage 2 Options Paper had the following four purposes:

- to discuss the meaning of financial contagion and systemic risk in the context of the NEM, in light of the financial relationships between market participants;
- to outline the risks faced by retailers and generators operating in the electricity market, and explain how those risks are currently managed;
- to consider if and how the degree of systemic risk in the NEM might be assessed; and
- to explore a range of measures that aim to reduce systemic risk in the NEM, and invite stakeholder views on these measures.

A.2 Working group and advisory committee

The COAG Energy Council's request for advice requires the Commission to draw on input from market participants in preparing its advice, including establishing an industry working group and an advisory committee.

The working group comprises representatives from the following market participants:

- AGL Energy
- Alinta Energy
- EnergyAustralia
- International Power GDF Suez
- Origin Energy
- Snowy Hydro
- Stanwell Corporation.

In line with the COAG Energy Council's request for advice, the Commission has established an advisory committee to help ensure that any recommendations that we make consider all relevant policy and regulatory requirements. The advisory committee comprises representatives from:

- the Australian Energy Regulator
- the Australian Energy Market Operator
- the Australian Securities and Investments Commission
- COAG Energy Council officials
- Commonwealth Treasury.

B Summary of stakeholder submissions to the first interim report

The following table summarises the issues raised in submissions to the first interim report, and the Commission's response to each of these issues. The issues have been organised in line with the chapters of the second interim report.

The submissions are available at the AEMC website: www.aemc.gov.au.

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
Special administration regime (SAR)		
AEMO	AEMO remains of the view that an improved ROLR process would still be unlikely to prevent financial contagion if a large retailer or gentailer failed. It is important that the AEMC and policymakers continue to develop an alternative to the ROLR mechanism - the SAR is one such alternative.	See chapter 7.
AER	Supports the development of a SAR. In those circumstances, we consider that a SAR has significant benefits for mitigating the risk of financial contagion spreading across the energy market. If the AER and AEMO comply with their legal obligations without intervention by governments, it will quite possibly lead to cascading large retailer failure, leading to collapse of the wholesale spot market. In addition, there would be long-term detrimental impacts on the competitiveness of the retail market.	
AER	Consideration should be given to ensure that it includes an assessment by the ACCC of any transfer of assets under s.50 of the Competition and Consumer Act (2010).	
AFMA	AFMA is concerned about the proposed treatment of OTC contracts under the SAR. OTC contracts are written under ISDA agreements, which have "close-out netting" arrangements. Close-out allows a solvent counterparty to terminate a contract under certain conditions and demand payment under the terms of the contract. Netting reduces at-risk positions from gross amounts to much smaller net values. AFMA argues that close-out netting reduces systemic risk by reducing the size of at-risk positions. They argue that if close-out netting is not permitted, solvent counterparties would be immediately liable for amounts due to an insolvent firm, but would have to wait for any payment due from the insolvent firm. This could have severe liquidity implications for the solvent firm.	
AGL	AGL does not support the recommendation regarding the SAR as, in AGL's view, this measure: • is overly intrusive and would significantly increase regulatory burden; • is out of proportion with the probability of such an event occurring • is not consistent with the AEMC's assessment criteria; • would increase business costs in a highly competitive market environment; • runs counter to business models which are aimed at cost minimisation and streamlining. Additional costs	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
	would likely be incurred in the following areas: labour, legal, information technology, hedging, prudential/collateral and accommodation; • conflicts with the NEO, given the potential business impacts; and • would run counter to current insolvency practices and require specific amendment to facilitate its implementation.	
AGL	AGL also questions whether such a mechanism could operate effectively in the event of the failure of a vertically integrated company. Specifically, the possibility exists that should a vertically integrated company's retail arm fail, its generation portfolio would also be under duress as AEMO would have sought payment for the retail operations debt in the first instance – prior to it being declared insolvent and prior to a ROLR event being triggered.	
AGL	Instead, AGL suggests that the AEMC investigates the costs and benefits of: • Amendments to DNSP credit support provisions. This option would reduce the ROLR obligations to DNSPs – which will assist them with transitioning the new customer load into their business; • Partial market suspension; and • The delayed designation of ROLRs.	
Alinta Energy	The SAR is undesirable, for a number of reasons: • The benefits of a SAR are overstated and quantification of the actual risk being managed or the actual costs arising from a SAR has not occurred. • The process to appoint a SAR involves more decision points, parties, legal issues, time delays and pre-planning than to date has been deemed permissible for the ROLR or ROLR alternatives/amendments. • The SAR provides new expanded roles to parties which have not been able to manage the ROLR to a point where it does not remain an arrangement of concern. • The SAR is mis-characterised as minimising risk when it actually only shifts risks to other parties including shareholders. • The SAR places other interests ahead of property rights and shareholders' interests in an ad hoc and	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
	unclear manner. • The SAR will result in immediate and significant costs, requires legislative changes to be enacted, requires the legal restructuring of existing entities, and raises a host of yet to be resolved administrative issues. • The proposal creates risks that could result in failure in other parts of a business that may have a greater overall impact on the market or the economy than those being managed through a SAR. • The SAR requires a number of exemptions from current arrangements including credit support that were deemed unacceptable generally and were in part justification for creation of the SAR – delayed payment of credit support, disallowing hedges to be cancelled etc. • The proposal increases risks, will create perverse restructuring incentives, raises moral hazards, and could encourage greater risk taking by ring-fenced retail entities in conflict with the intent of the existing prudential regime. • The proposal still requires a default allocation mechanism following the SAR where all customers have not been allocated. If a default transfer mechanism was in place in the first instance this would obviate the need for a SAR and overcome the ROLR shortcomings.	
Alinta Energy	Alinta furthermore proposes a number of measures that it believes should be considered further as, in Alinta's view, they provide better options than a SAR: • a default transfer mechanism based on pre-determined offers from retailers, generators, distribution companies and others to accept customers based on the existing ROLR; • transferring some credit risk to DNSPs; • a short payment cap and pass though mechanism; • a shorter settlement cycle.	
Alinta Energy	Failure to prove that there is zero risk does not mean that more stringent regulation is needed. Alinta proposes a set of alternative questions compared to the ones as set out in the Commission's analytical approach. These are: • Are risks associated with a ROLR event derived from the market or are they a consequence of implementing the ROLR itself? Alinta is of the view that these risks associated with the ROLR can be	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
	managed by improvements of the ROLR or alternatives, in absence of the SAR. • Do any of the residual risks that could emerge under any plausible - not contrived - scenario lead to the possibility of financial contagion that differs from that which currently exists in the market? The impact of a retailer failure is only accentuated as the ROLR arrangements require a sudden, upfront and unexpected injection of capital in the market. If these risks were managed to the best possible extent as part of a revised ROLR there would be no significant residual risks except those that are already part of the existing market dynamic. These risks should not be used as justification for further regulatory intervention. • Are the residual risks of such a size as to warrant further regulation, or changes to procedures or the NER, beyond those improvements to the ROLR that have already been proposed by the AEMC and stakeholders? Alinta does not believe the risks are of significant size or probability to warrant a SAR. • If the residual risk warrants further regulation, is a SAR the most cost-effective way of managing the residual risk that remains under any or all plausible scenarios? Alinta does not believe the residual risk warrants further regulation. Instead, the focus should be on resolving the issues which arise as a consequence of the ROLR. • If the SAR is not proportionate, not well targeted, and not desirable, which other amendments or changes can be made to better manage the existing risk? Alinta's preferred option is progress a single cover-all default transfer mechanism based on the existing ROLR.	
Australian Power & Gas (APG)	APG believes that government intervention may be necessary in the event of a large retailer failure in order to ensure the smooth transition of consumers to new electricity suppliers, but it is concerned that the costs and management of the proposed SAR will outweigh the benefits. Further, APG notes that such a regime will require significant legislative changes to clarify how it will interface with existing requirements of insolvency laws to prioritise the efficient transitioning of consumers over the interests of administrators and creditors.	
EnergyAustralia	Energy Australia does not support the draft recommendation to develop a SAR for electricity retailers: • The proposed regime is not well targeted or proportionate to the identified problem (financial contagion arising from ROLR arrangements); • The SAR would require significant changes to established, economy wide insolvency laws and directors duties. It would have far reaching consequences and affect the rights and obligations of all businesses	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
	with electricity retail licences, their creditors and trading partners. • The implementation of the scheme would impose significant upfront costs, and ongoing risks, to achieve uncertain benefits. A key difference from standard insolvency processes is that the administration objectives would not include maximising value for the failed retailer's creditors. This would increase the inherent credit risk of electricity retailers and funding costs across the industry. • The proposed requirement that a retailer's electricity retail operations be ring-fenced into a separate corporate entity, together with relevant assets including hedge contracts, would distort business models and crystallise costs upfront. • The SAR would explicitly prohibit counterparties from exercising their termination rights under hedge contracts in order to provide the administrator with the right to determine how and when the hedge book of the failed retailer is unwound. This prohibition would increase the riskiness of contracting with retailers and reduce the ability of the market to efficiently adjust to the failure of a retailer. • The potential benefits of the proposed scheme are not clear. It does not resolve the most difficult issues that arise from the failure of a very large retailer. The circumstances under which Government would intervene still need to be defined and a default allocation method established in case the administrator is unable to sell some customers. • All very large electricity retailers currently own significant generation portfolios. It is counter-intuitive to expect that separating the administration of the retail assets from the generation assets would decrease the cost and risk associated with a Government intervention if spot market prices are anticipated to be high and volatile. • The precedents identified in the interim report do not demonstrate a need for a special administration scheme, or that it would be effective and provide net benefits if implemented. The AEMC should undertake more detailed analysis to identify and quantify the potential costs, risks and benefits before recommending such a significant and far reaching change. • The costs associated with servicing the failed retailer's customers are real. Increasing the complexity and uncertainty of administrative arrangements will not reduce them. If Government determines that it should have a role to support the orderly liquidation and transfer of customers then this is likely to have cost. If the total net value of a retailer's customers significantly exceeded their liabilities then it is likely that commercial arrangements would have been found to avoid a default event that would trigger ROLR. • Government should be able to negotiate with an administrator to achieve its policy objectives without	

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	significant changes to insolvency law if it is prepared to meet the associated costs. • Cost recovery arrangements for Government can be considered separately, and could in theory be established before or after the event. Given that the failure of a very large retailer is highly unlikely, it may be more appropriate for Government to consider whether and how to recover costs after the event, if such an event ever occurs.	
ENA	The ENA supports the option of a SAR in the circumstances that the AER and the Minister consider that reference to the ROLR scheme would be inadequate to manage contagion risk. ENA notes that under a SAR a distributor's court proceedings against a retailer for not paying distribution charges would be halted and any call on network credit support would also be stopped. ENA seeks assurance that the intended process would provide a mechanism which ensures where the failed retailers' retail contracts are sold or auctioned, current liabilities to distributors and metering providers would be addressed. ENA queries whether the sale of the failed retailer would also include the current liabilities to distributors and metering providers or whether these will be collected via a retailer insolvency event. ENA suggests that the levy to recover the government funding could be allocated in a similar manner to the considerations that the AER would have in the allocation for any ROLR cost recovery scheme. ENA seeks assurance where a distributor is administering such a cost recovery mechanism, it will remain financially neutral and its costs will be met.	
ESAA	The ESSA considers the proposed SAR: • to be highly intrusive, complex, and would require changes to nearly every aspect of running an energy business; • would impose material costs for uncertain benefits; • is not well targeted and not proportionate. The ESAA suggests the AEMC has not made a convincing case why standard insolvency practices would not be sufficient. They suggest that in all but a narrow set of cases securing supply and getting the best deal for creditors would appear to be aligned. The standard administrator would attempt to sell the customer base, like the special administrator. ROLR faces the same issues to obtain hedges under the SAR, just slightly different timing. The only impact for the SAR is on the failed retailer and their counterparties. It will increase the risk of contracting. Ring-fencing undermines the use of a range of legitimate corporate	

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	structures; imposes costs. A thorough cost-benefit analysis is required if proposal is pursued.	
Energy and Water Ombudsman Victoria (EWOV)	The Ombudsman should be involved in planning SAR, due to experience with customer concerns. EWOV would no longer be able to investigate most cases if an administrator is appointed, as they are not a EWOV scheme participant. Complaints would mostly be referred to administrator or Consumer Affairs.	
GDF Suez	GDF does not support the recommendations regarding the SAR. GDF considers this to be an unnecessarily complex and intrusive approach which would impose undue financial, administrative and legal burdens on the retailer in question. GDF considers the proposal is out of proportion with the probability of one of the large retailers failing and is thus inconsistent with the Commission's assessment criteria. One of GDF's key concerns is how the SAR interacts with existing Australian insolvency laws. It is unclear from the Interim Report how the proposed regime would coordinate its activities with insolvency administrators appointed to manage liquidation of a failed retailer. It is GDF's view that the regime's implementation could require wholesale changes to insolvency laws which could affect the financial stability of other Australian industries. It is GDF's view that the specific objectives listed in section 5.1.2 of the Interim Report can be achieved within the ROLR regime, without imposing unnecessarily punitive measures such as the special administrator provisions.	
Lumo Energy	Lumo supports comments made by the ERAA in their submission, in particular that the Commission should ensure that the SAR regime does not introduce further opportunities for moral hazard to occur.	
NGF	SAR is not required. The NGF is concerned about impact on efficient operation of the market, access to credit liquidity, efficient use of capital and end-use customers pricing. By placing the interests of customers ahead of creditors the SAR could devalue investment in utilities and shift capital into other sectors. SAR represents a fundamental policy change. It would need to be supported by material evidence that the risk-adjusted benefits outweigh the costs. There is no evidence to suggest the proposed amendments to ROLR credit support and cost recovery will be insufficient to manage the risk of contagion. The SAR is likely to create immediate costs, unjustified given low level of risk. Ring-fencing may allow the defaulting party to withhold assets from creditors in the event of default and may encourage greater risk taking by participants in the NEM (apparent in TXU example detailed in NGF	

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	submission). SAR creates uncertainty in ROLR event due to ambiguity of process. This would lead to contract market illiquidity, limiting risk remediation opportunities for distressed market participants, increasing risk of financial contagion. Termination of hedges with a counterparty that has a weakened financial position is of value to market participants. Removing this option reduces the value of derivatives as a market risk management measure. OTC contract holders might give notice earlier than otherwise to avoid the uncertainty of the SAR, which could destabilise the weakened retailer. Allocating the contracts to multiple ROLRs is unlikely to be an optimal fit for the ROLRs. Also, it's likely that the failed retailer's hedge book may have contributed to its failure, so would not be of benefit.	
New South Wales DNSPs	There is merit in establishing a SAR. While acknowledging the inherent complexity and difficulty involved in establishing such a regime, NSW DNSPs consider that this would be an effective measure for mitigating both the flow-on impacts to other participants and also the risk of cascading retailer failure. Further consideration is needed on the appropriate cost recovery mechanism for government funding shortfalls under the SAR. Noted that the jurisdictional schemes is a viable option but further consideration is needed on how the scheme is triggered given that a large retailer is likely to have been operating in multiple jurisdictions and also on how DNSPs payment obligations are determined. NSW DNSPs also see merit in considering adapting the ROLR cost recovery scheme to include SAR government funding shortfall.	
Origin	Origin does not support the SAR. It could significantly increase costs and risks of transacting in the NEM. It is complex and broad based and could have unintended consequences. It could diminish the NEO insofar as the special administrator would not seek to maximise the return of creditors. In particular: • Court-appointed administrator - the appointment of the administrator by a court could take some time, increasing liabilities and risks. The longer the delay in obtaining metering data the more uncertain cost recovery • Ring-fencing – without ring-fencing the administrator could have difficulty achieving its objectives. However, a requirement to ring-fence retail operations could impose a significant onerous burden on market participants • Restrictions on terminating hedge or other contracts – this proposal changes the risk profile of hedge contracts for the counterparty. Limits their ability to resell the hedge. Restricts counterparties' ability to	

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	manage credit risk and could deter investment or liquidity in the contract market. Risks to retailers and designated ROLRs could be reduced through exercising termination or novation provisions under ISDA agreements. The longer the termination or novation restrictions are in place, the less likely a designated ROLR would be able to access hedge contracts • Cost recovery for SAR – would impose disproportionate additional costs on NEM participants and end users, and increase creditor risk and therefore borrowing costs. Costs are disproportionate to the objectives of the regime.	
Public Interest Advocacy Centre	PIAC requests that the AEMC works with the AER to ensure that the retailer authorisation is revoked where the failure of an energy retailer is dealt with by a SAR. Retail authorisation should not remain as an asset of a failed retailer. All new entrants should be assessed against the criteria in the Retail Law before getting retail authorisation.	
Allowing the Commonwealth to provide credit support		
AEMO	AEMO acknowledges that this is a sensible and practical compromise from the normal arrangements for the provision of credit support, which can be used as a last-resort to mitigate contagion risk.	See section 8.2
Alinta Energy	Alinta supports this option.	
ENA	The ENA supports an approach where the Commonwealth government could offer credit support to AEMO over an interim period.	
EnergyAustralia	EnergyAustralia supports the recommendation that the NER be amended to enable, but not oblige, the Commonwealth government to provide credit support. State and Territory governments already have this capacity.	
ESAA	The ESAA sees short term government credit support, together with general insolvency, as sufficient to manage large retailer collapse. While government would need to make a quick decision about posting credit support, it would also need to make a quick decision if a SAR was introduced. While government wouldn't have control over the business it provides credit to, the interests of the ROLR and the government are aligned, and the ROLR is best placed to manage the influx of customers.	

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NGF	NGF supports this option, but thinks it would be enhanced by allowing the Commonwealth government credit support to extend beyond AEMO.	
Origin	Origin supports the recommendation to enable the Commonwealth government to provide credit support for the designated ROLR. Assistance in meeting credit support obligations in the short term could significantly reduce the risk of contagion.	
Revised cost recovery arrangements		
AER	The AER supports changes to the cost recovery arrangements. This could increase the appetite among retailers to submit expressions of interest to act as additional ROLRs and improve the likelihood of the designated ROLR being able to borrow funds to cover its short-term costs. The AER considers that the cost recovery arrangements for small to medium ROLR events should preserve the principle in section 166(7(c)) of the NERL that the registered ROLR will itself bear some of the costs. AER considers that the principle is still appropriate where the number of transferred customers (and their load) is low relative to the ROLR's pre-existing customer base.	See section 8.3.
AFMA	AFMA is also concerned about the cost recovery mechanism – they believe there has been a "lack of proposer threshold policy control over government decision making on whether to use cost recovery in the first instance." AEMC should adopt best practice in relation to the regulatory impact assessment process.	
Alinta Energy	Alinta supports the cost recovery provisions being amended to give the designated ROLR greater certainty that it can quickly recover all reasonable costs associated with a ROLR event as this will reduce the financial uncertainty facing a designated ROLR in the event of a retailer failure, is likely to increase willingness of more retailers to nominate to act as additional ROLRs, and will make parties better placed to source any finance that may be required should an event occur.	
APG	APG is generally supportive of the proposed changes in the First Interim Report to provide the ROLRs increased confidence on their ability to recover costs associated with meeting their obligations. APG believes that the financial stress resulting from a retailer needing to undertake its ROLR obligations has limited retailers self-nominating to be an additional ROLR. APG therefore believes that the recommendations will not only ease the financial stress on the ROLRs but may encourage additional	

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	retailers to act as a ROLR, particularly where multiple retailers may be needed for a large retailer failure. APG is however concerned that the proposed changes will only apply to NEM ROLR events. As the ROLR scheme is harmonised to cover both electricity and gas retailers, the AEMC may need to consider the potential impacts of splitting the ROLR scheme by fuel as the failure of a retailer in most instances will affect both gas and electricity markets and customers.	
ENA	The ENA is concerned that any timely compensation payments to assist the designated ROLR should also be accompanied by timely distributor cost recovery or be linked to mechanisms support timely recovery of costs from customers.	
EnergyAustralia	Energy Australia supports revised ROLR cost recovery provisions to give the ROLR greater certainty that it can quickly recover all reasonable costs associated with the event. This is critical to support short term funding to cover the step change increase in settlement and prudential costs well in advance of receiving additional revenue from consumers. ROLR tariffs should allow for full cost pass through (including time of use components where interval metering is in place).	
GDF Suez	GDF supports the proposed changes to the ROLR scheme and credit support arrangements, which should: • encourage additional retailers to offer to become ROLR's; and • reduce the risk that an otherwise solvent ROLR would be unable to provide the required credit support to AEMO following a ROLR event. GDF believes that the changes should directly address the concerns expressed over financial contagion and are consistent with the criteria of assessment established by the Commission for this review.	
NGF	The NGF supports enhancements to cost recovery provisions, and thinks they should be extended.	
Origin	Origin welcomes the recommendation to amend ROLR regime to provide greater certainty that the ROLR could quickly recover the reasonable costs of the ROLR event. This could significantly reduce the risk imposed on the ROLR, and therefore contagion risk.	
Delayed designation of ROLRs		

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AEMO	AEMO agrees this measure may improve opportunity for additional ROLRs and more optimal allocation of customers, and mitigate risk of contagion. It is not likely to have a material impact on NEM prudential process. AEMO is concerned to ensure AEMO has sufficient information and authority to execute the ROLR process following suspension, eg, if no adjustment is made by AER within 24 hours, then the mechanism should provide for AEMO to act on the default ROLR allocation. AEMO suggests responsibility for management of customer inquiries be made clear - it is important to note AEMO is not equipped to operate as a customer call centre.	See section 8.4.
AER	AER supports the recommendation for the extra 24 hours. Notes that the designated ROLRs will inherit an unhedged exposure to the spot price for all energy consumed during this interim period, which could be substantial if the failure occurred during a period of high spot prices. However AER considers that its actions during this period and the early notification to the default ROLR will help to minimise this cost. A disadvantage to the extra time is that customers will not know who the new retailer is for the 24 hour period, potentially creating communication and event management issues.	
Alinta Energy	Alinta understands it may be desirable to allow for limited delay despite the additional risk of non-payment that will arise and be allocated to generators under the existing ROLR, but notes that notes that if a greater amount of pre-planning had occurred, including identification or obligation to act as additional ROLRs, a delay may not be warranted. If the Commission were to go ahead with this recommendation, Alinta believes that the AEMC needs to model the risk arising from the additional delay and consider options for passing through the costs associated with the additional delay to customers. It is arguable that the exposure of generators should be capped with a pass through mechanism.	
ENA	The ENA is willing to support providing the AER an additional 24 hours following a ROLR event in which to advise AEMO of the designated ROLRs, but would like to clarify how network to retailer process would operate during this period (eg, data services, the failed retailer's rights to disconnect customers, and metering services).	
EnergyAustralia	A short increase in time may be acceptable if this materially assists the AER allocate customers based on expressions of interest. It is not obvious that a short extension of time for the AER to nominate ROLRs to AEMO as recommended would deliver a material benefit. The first interim report observes that this recommendation may marginally increase the financial challenges faced by the designated ROLR. It would be perverse to make a change that increased contagion risk and this option should only be pursued if this	

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	increased risk is more than offset by other arrangements. The AER should actively maintain and encourage a market driven allocation through regular voluntary pre-registration of interest at all times. The ROLR rules need to provide better incentives for retailers to nominate as non default ROLRs.	
NGF	The NGF supports this option.	
Origin	Origin does not support delaying the appointment of designated ROLRs. Retailers are best placed to indicate to the AER the capacity of the business to successfully integrate a given number of customers and avoid financial distress. A large ROLR event could most effectively be managed where ROLRs have previously registered as firm or non-firm ROLRs or designated ROLRs should indicate their capacity to take customers.	
ROLR arrangements for large customers		
AEMO	AEMO agrees there are several benefits for large customers being able to opt out of the ROLR arrangements, including greater financial certainty for the customer, and reduced exposure to the spot market for the ROLR. The NERL does not appear to require that the AER be advised by AEMO of what large customers have opted out of the ROLR process. In the interests of clarity the AEMC should consider making this information sharing a clear obligation in the NERL. AEMO does not have a broad operational interface with large customers and does not consider an advocacy role fits well with its responsibilities, but AEMO would be prepared to support the AER in this regard.	See section 8.5.
Alinta Energy	Alinta Energy notes the AEMC's recommendation and considers that there may be value in making ROLR arrangements for large customers an opt-in arrangement as opposed to an opt-out arrangement.	
ENA	ENA supports the proposal for the AER or AEMO making large customers aware that they have the opportunity to opt out to an alternate retailer should their current retailer fail.	
EnergyAustralia	Energy Australia supports this recommendation and encourage the AEMC to consider options to further reduce the magnitude of the ROLR intervention by requiring large customers to nominate their own back up retail arrangements by default. Large industrial and corporate consumers can be excluded as they have the resources and purchasing power to manage the risk of retail failure through procurement and contracting	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
	strategies, insurance, and back up generation for critical loads.	
ESAA	The ESAA considers that limiting the ROLR scheme to small business and households would substantially reduce costs and risk of financial contagion.	
Amendments to AEMO credit support		
AEMO	AEMO agrees that this recommendation, if implemented carefully, can provide some mitigation of financial contagion risk. The parameters should be clearly set out in the Rules to provide certainty to ROLRs. AEMO considers the ramping element of the proposal to be workable - to avoid triggering this provision where there is minimal risk of financial contagion, AEMO suggests that a threshold be included. The recommendation to provide a period of grace in respect of breaches of revised trading limit needs clarification. AEMO suggests that alternative approaches to implementation be considered using the parameters of the standard prudential process - AEMO's preference would be to specify the new mechanism in terms of changes to the trading limit, maximum credit limit and prudential margin. AEMO would still issue a call notice if the ROLR's outstandings exceeded its trading limit, but the degree of relief provided to the ROLR would be controlled by the policy settings in the Rules rather than being uncapped.	See section 8.6.
AER	The AER supports the proposed changes to credit support requirements and considers it is appropriate that generators take on some additional risk. This will encourage more retailers to offer to be additional ROLRs, knowing they would have more time to secure additional credit support.	
AGL	AGL supports the recommendations regarding amendments to the existing ROLR regime. AGL considers that easing of initial credit support requirements would substantially decrease the pressure on the ROLR to meet credit support obligations for the new customer load. It would also broadly meet the AEMC's criteria in that it is proportionate to the problem; minimises regulatory burden; and minimises the potential for moral hazard. AGL also considers that this proposal will increase the likelihood that market participants will offer to be a ROLR.	
Alinta Energy	Alinta is open to further work occurring on the proposal to temporarily waive credit support requirements for the ROLR. This is a change in position from Alinta's submission to the options paper, and it is supported in light of non-progression of the SAR and strict limitations being imposed on the amount of exposure that can accrue to generators. Options for passing through the costs should be considered by the AEMC.	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
APG	APG supports the recommendations to ease AEMO prudential requirements for retailers assuming ROLR obligations in order to reduce financial pressure on ROLRs needing to provide immediate credit support to cover customers acquired during a ROLR event.	
EnergyAustralia	The need to provide credit support is a key driver of the risk of financial contagion. Providing the ROLR with one weeks grace, and then ramping their credit support obligations up over a four week period may assist by providing the ROLR greater time to arrange finance, provided the ramp up is carefully designed not to significantly reduce settlement credit quality and transfer risk to generation. The interim report observes that this option may be most beneficial when combined with changes to allow the Commonwealth to post credit support. An alternative interpretation could be that if the Commonwealth is well prepared to offer credit support to a ROLR then delay in the provision of credit support to AEMO should be unnecessary.	
GDF Suez	GDF considers that the proposed changes to the ROLR scheme and credit support arrangements will: • arrange for the orderly transfer of the failed retailers customers to the ROLR(s); • provide the ROLR(s) sufficient time to arrange the required credit support for AEMO and the relevant distribution businesses; and • provide the ROLR(s) with some credit assistance for their short term costs associated with the ROLR event and will therefore reduce the likelihood of financial contagion following a large retailer failure.	
NGF	The NGF supports this option - changing credit support arrangements is the least distorting option.	
NSW DNSPs	NSW DNSPs consider that the proposed changes to credit support arrangements are well targeted and appropriate for mitigating the risk of a cascading retailer failure.	
Origin	Origin supports the AEMC's recommendation to phase in the level of AEMO credit support to reflect actual exposures rather than requiring a lump sum at the outset – this will reduce the risk of contagion.	
Improvements to ROLR processes		
AEMO	AEMO agrees there are potential improvements to customer information, but noted that it's systems do not	See section 8.8.

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
	provide any customer information apart from connection point details. The current approach of relying on distribution businesses to maintain customer information has not proven to be reliable to date. There are currently a range of issues associated with the ownership and access to customer data. AEMO proposes to address the issue initially with the retail market leaders forum.	
AER	AER strongly support the need for standardised and up-to-date customer data information as well as an efficient transfer process capable of moving large numbers of customers in a short period of time.	
Alinta Energy	Alinta acknowledges the issues raised but suggest that no firm recommendation be made at this time other than encouraging further work by AEMO and the AER. Care should be taken that additional customer data transfer requirements do not become a reporting burden rather than a benefit. Further, if the ROLR as the default transfer mechanism were working effectively each retailer would be engaged regularly to detail to the AER their ability to absorb customers in light of any potential failure event by region. This information would be more useful and better able to facilitate efficient transfer than customer data after the fact.	
ENA	ENA supports the proposed operational refinements to the ROLR arrangements including improving the timeliness of establishing the new customer contracting arrangements. The AEMC needs to consider how the application of proposed wholesale demand mechanism would be affected by ROLR to ensure that there are no adverse effects.	
EnergyAustralia	It is vital that the ROLR can access timely and accurate information about the customers allocated to them and we support operational improvements to facilitate this. The AER and AEMO should continue to investigate improvements to the process of transferring customers to the designated ROLR, particularly the timely provision of accurate customer data. Care must be taken to ensure this activity does not result in significant system change costs for industry based on the low likelihood of such an event.	
Origin	Origin supports the draft recommendation for improved customer data, so the ROLR can accurately identify the size and shape of any integrated customer load. Origin sees value in aligning the customer admin requirements for electricity retailers with gas retailers. This reduces the risks of integrating new customers.	
Market suspension under the NER (including partial suspension)		

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AEMO	The NER does not provide a policy framework for the management of generation following a default event by a gentailer and the subsequent decision by AEMO to suspend the business, or a portion of it from the NEM. The policy framework needs to balance the risks of having unhedged generation and potentially generation under administration continuing to operate, against the risks of potential supply shortfalls in physical and financial markets.	See chapter 9.
Alinta Energy	Alinta does not consider the issue of partial suspension to be a major problem and Alinta is not convinced by the AEMC's suggestion that a generator would stop producing energy in these circumstances. There is no obvious reason why a generator, providing credit, should be suspended. The option of allowing a generator to keep providing credit while suspending a participant from acting as retailer and being short to the market and is far less intrusive, far less problematic, and requires significantly less legal amendment then the introduction of a SAR.	
EnergyAustralia	AEMO has raised concerns about the implications of a retailer failing when it is part of a vertically integrated business and notes that there 'is no mechanism in the NEM for ongoing operation of generation when a business is insolvent or suspended'. Energy Australia agrees that the rules give rise to some uncertainty as to whether a generator would be available to the market if it is part of a retail group that was suspended, or is itself in administration. This situation should be resolved through a review of the relevant rules, including the merits of the existing prohibition on trading while in administration. It is not obvious why this should be the case for generators or any participant where an administrator is able to provide suitable binding guarantees that they will meet their obligations under the NEM.	
ESAA	ESAA supports allowing generation assets to continue trading after the suspension of the retail arm. There is no risk to AEMO as generators receive payments from the market.	
Origin	Origin agrees that loss of generation may be a risk to the market, but does not think this should be addressed by partial suspension or special administration. Origin agrees with AEMO that there are no explicit provisions for the operation of generation assets where the retail business is placed under external administration. However, under the NER each connection point requires a Financially Responsible Market Participant. Origin recommends the AEMC consider ways to ensure a Financially Responsible Market Participant is maintained over the generation assets at a connection point, eg, enabling the transfer of the registration over the generation assets from the suspended vertically integrated retailer to the administrator.	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
Other issues - Delay of DNSP credit support		
NSW DNSPs	The NSW DNSPs agree with the Commission's draft decision not to recommend options aimed at amending DNSP credit support provisions or delaying the settlement period for the designated ROLR to pay DNSPs. These measures are likely to transfer significant risks to DNSPs and have a number of adverse flow-on effects.	See section 8.7.
EnergyAustralia	Contagion risk is exacerbated by transferring costs and risks to other retailers or generators. It may be possible for DNSPs to temporarily absorb some costs and reduce contagion risk, provided they have access to secure and timely cost recovery under the NER.	
Other issues - Risk management in the NEM, and the G20 proposals		
AGL	AGL understands that greater focus may be placed on G20 reforms if the SAR is not adopted, and therefore reiterates some of its concerns with the G20 reforms in light of the three step analysis that the AEMC proposes. AGL agrees with the AEMC's assessment that the likelihood of financial contagion in the NEM is low. AGL believes that, apart from a large retailer failure, there are no other events that could create a material risk of financial contagion in the NEM. There have been significant events that have affected individual participants but have not resulted in widespread contagion or systemic impact in the NEM. Examples include the 2006-2008 drought and the collapse of Enron.	See chapters 10 and 11.
AGL	Even if there were potential sources of financial contagion in the NEM, AGL asserts there are significant regulatory mechanisms and risk management practices in place to prevent financial contagion. Market participants are subject to prudential and margining requirements by AEMO. Most participants have entered into derivatives to manage their financial risks and are therefore subject to financial requirements related to holding an AFSL and participating on the futures exchange. Participants also have robust internal risk management frameworks – which are routinely monitored – to manage credit, market, operational and liquidity risk.	
AGL	Any additional regulatory measures that may be imposed may have a significant impact on the electricity market. The AEMC should therefore consider the significant costs that the G20 reforms will impose on the OTC electricity derivatives market and the implications of such costs. The value of entering into OTC derivatives is that it enables participants to enter into contracts that are tailored to the exposures they may	

STAKEHOLDER	ISSUE	COMMISSION RESPONSE
	face. However if additional costs are placed on OTC derivatives, participants may move more towards the standardised products on the exchange and thus reduce their ability to effectively hedge against their risks. If participants face increased costs in the derivatives markets, such costs may also ultimately be borne by consumers.	
AGL	The AEMC should also consider the broader implications of the G20 reforms, and whether they will actually increase the risk of financial contagion rather than mitigate it. For example, in the event that there was a failure of a large participant, it would create significant market volatility. The margining requirements under a centralised exchange or bilateral agreement in a volatile market would actually increase the strain on cash flows of participants, which would exacerbate the risk of financial contagion. AGL considers that it would be worth considering whether the significant events in the history of the NEM could have led to a greater risk of financial contagion, had some of the OTC reforms been in place at the time.	
Alinta Energy	Alinta retains the view that the financial relationships and financial markets that underpin the operation of the NEM are robust. The market continues to operate efficiently and entities have well developed and sophisticated risk management expertise underpinned by continued market participation.	
APG	APG considers that the energy market's financial underpinnings and the risk management arrangements of market participants are robust. APG has advocated through the working group process that any recommendations from the financial market resilience review should minimise the need for regulatory intervention and allow the market to respond to what is essentially a market failure.	
Other issues - Ombudsman scheme		
EWOV	If a large retailer collapsed, Ombudsman schemes would have a key role in ensuring smooth transition of customers. Prompt communication with customers vital; EWOV would need warning to prepare for increased workload. EWOV could be faced with 12,000 extra cases if a big retailer failed.	The Commission recognises the important role played by Ombudsman schemes and the potential impact of a large retailer failure on their operations.
EWOV	Collapse of large retailer could have an adverse financial impact on EWOV, as failed retailer may not be able to pay for services provided by EWOV.	
Other issues - Retail price regulation		

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EnergyAustralia	The risk of financial contagion arising from the failure of a large retailer is a result of regulatory failure, not poor business practices in the remaining retailers. Mitigation should therefore focus on reform of ROLR arrangements, complemented by broader reforms to facilitate the long term sustainability of the electricity market - such as the removal retail price regulation.	The terms of reference for the AEMC review into NEM financial market resilience do not extend to consideration of retail price deregulation. See chapter 8 in relation to proposed changes to the ROLR scheme and credit support arrangements.
ESAA	The ESAA believes the problems associated with large retailer failure are due to regulatory failure – the ROLR scheme and retail price regulation – so the solution should be to address regulatory problems. The ESAA's preferred approach to addressing these issues is: • retail price deregulation – which removes the risk of customers not being viable; • implementation of proposed amendments to the ROLR scheme; and • Short term government credit support and general insolvency to manage large retailer collapse.	
Other issues - Objective in regard to failing business		
EnergyAustralia	Energy Australia agrees that any government response should not seek to prevent the failure of individual businesses.	The objectives of the Commission's proposed framework for responding to a failure of a systemically important market participant are set out in section 6.2.1.
GDF	GDF agrees with the Commission that the objective of the ROLR scheme should not include provision of financial support to the failing retailer.	

C Summary of stakeholder submissions to the stage two options paper

The following table summarises the issues raised in submissions to the stage two options paper, and the Commission's response to each of these issues. The issues have been organised for consistency with the chapters of the options paper.

The submissions are available on the AEMC website at www.aemc.gov.au.

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
Risk and risk management in the NEM		
Risk trade-off		
AGL	The Options Paper provides a good summary of the risks and risk management in the NEM. However, the fundamental point to appreciate is that credit risk is not the biggest risk in the market. There is inherently a degree of credit risk associated with participating in any OTC derivative market. However, physical participants use the OTC electricity derivative market to hedge the much larger market risk in the NEM.	We recognise that participants face a variety of risks and that risk management by participants involves a continuous trade-off between various sources of risk. See sections 2.2 and 4.1.1 of the report.
Alinta Energy	Risk arises as a result of the market structure. The nature of the gross pool facilitated market requires the use of derivatives, notably OTCs, to manage that risk. In the absence of a new market structure risk can only be moved from one part of the market to another. Market risk is of greater concern than credit risk which always suggests reducing market risk through some OTC exposure is a good thing. The myopic assessment of OTCs in isolation fails to capture the sophistication of large energy businesses.	
EnergyAustralia	Risk management involves a continuous trade off of risks. The most important point to note in relation to this risk trade-off is that there is no optimal answer. The preferred trade off depends on the circumstances of the market and underlying physical portfolio and is best determined by individual participants. Regulatory restrictions on the availability or cost of risk management tools and products will necessarily lead to sub-optimal risk management.	
ERM Power	Risk is an inherent aspect of the NEM and the total risk cannot be reduced; it can only be transformed. Of the risk trade-offs, that is, between market risk (spot price), credit risk (counterparty failure) and cash flow risk (increased margining), credit risk is the most manageable, and is already managed through a range of sophisticated complementary measures by risk experts.	
GDF Suez	OTCs are one of the instruments which enable participants to manage their market risk exposure. Although 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	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	represent a reduced risk position for the participant compared to the spot market, then participants would not enter into OTC's.	
GDF Suez	The Options Paper suggests that the potential for financial contagion arises through OTC contracts, rather than the other forms of risk (market risk or cash flow 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.	
GDF Suez	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.	
GDF Suez	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.	
GDF Suez	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.	
Role of OTCs		
ERAA	Market participants currently utilise sophisticated strategies to manage their risk in a variety of ways. OTC markets provide an efficient and low cost method for market participants to manage risk. These activities are already highly regulated, with ASIC afforded the powers to monitor and investigate any concerns with electricity financial market participants.	We have taken account of the role that OTC contracts play in managing risk when considering the potential application of additional

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ERM Power	Generators and retailers will always need bespoke agreements to efficiently manage the half hour exposure of the physical market. ASX products cannot fill this need given they are standardised. Even increasing the range of ASX choices does not meet the need to tailor contractual arrangements between generators and retailers.	measures regarding risk management and transparency, including the G20 measures for OTC reform. Our draft recommendations and proposed advice on these matters are set out in chapters 10 and 11 of the report.
ERM Power	OTC derivatives are the most efficient tool to manage market risk. OTC electricity derivatives are more efficient than ASX derivatives. ASX derivatives do not have the flexibility to manage the half hour exposure of the physical market. Generators and retailers that depend on ASX derivatives only will be regularly under- or over-hedged, which is in itself expensive and risky. Measures that inhibit the use of OTC electricity derivatives may reduce credit risk but will shift risk back to the original market risk. This may lead to increased market concentration which will dampen competition.	
ESAA	The gross pool market design of the NEM means participants need derivative contracts to manage risk. While exchange contracts are used to manage part of the risk, the bespoke nature of OTC contracts means businesses are better able to tailor contracts to their specific needs.	
Macquarie Generation	OTC derivatives play a crucial role in the NEM through allowing businesses to efficiently and flexibly manage a range of market risks. The AEMC must be careful not to recommend unnecessary restrictions or costs on the OTC market that would inhibit the use of this vital risk management tool.	
Macquarie Generation	The AEMC has underplayed the important role that OTC contracting has in moderating cash flow risk in the NEM. For example during the 2007 drought, the requirement to pay escalating margin payments created short term financial risk. In Macquarie Generation view market risk dominates the narrower risk posed by the default of OTC counterparties.	
Difference with financial markets		
AFMA	AFMA does not believe that G20 policy reforms for banking and the OTC derivatives market are applicable to the NEM. We agree that a failure of a large electricity business would not cause major instability to the overall financial system given the extent of the exposures the financial	We have taken account of the differences between the financial sector and the electricity sector

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	system has towards the NEM.	when considering the potential application of additional measures regarding risk management and transparency, including the G20 measures for OTC reform. Our draft recommendations and proposed advice on these matters are set out in chapters 10 and 11.
AGL	The Global Financial Crisis should not influence the assessment of risk, or be a driver for the implementation of policies and measures, in the OTC electricity derivative market – as they are two distinct markets. Fundamentally, the OTC commodity (i.e. electricity) derivative markets inherently have less risk than the OTC financial markets because they are used as a risk management tool to hedge the underlying market risk rather than for speculation purposes. Further, while OTC financial markets reportedly contributed to the GFC, the OTC commodity derivative markets (including electricity) were not involved.	
ERM Power	ERM Power agrees with the Commission that electricity businesses primarily trade in commodity derivatives where, contrary to speculative trades, there is a link with an underlying position in a physical commodity market.	
ESAA	The electricity financial markets, like other commodity markets, are different to 'pure' financial markets. Contracting in commodity markets is undertaken to manage an underlying risk in the physical market. Electricity derivatives are underpinned by a physical asset (generation output/retail book) and involve limited leverage. In 'pure' financial markets, while some trade is undertaken to manage a risk, there is a significant degree of speculation, with trades often being leveraged.	
ESAA	As there are material differences between the use of OTC contracts in different markets, there is not a prima facie case for harmonisation of regulatory approach. As such, it needs to be established that electricity OTC contracts require greater regulation on their merits, rather than simply arguing that this is the treatment for other OTC markets.	
ERM Power	Notes the Commission's discussion of why the physical assets behind generator and retailer trading positions mean that any perceived lack of collateralisation should be approached with caution (see page 38 of the Options Paper), and agrees with this perspective.	
GDF Suez	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. Whereas participants in pure financial markets may use derivatives as a speculative instrument, the essential purpose of OTC contracts in the NEM is	

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	to enable participants trading the physical commodity (electricity) to hedge their exposure to the spot price market risk.	
Macquarie Generation	Financial instability in the NEM is less likely than in traditional financial markets due to the nature of the NEM, which is dominated by natural market players with large offsetting market risk positions. There are a number of characteristics of the NEM that differ from financial markets: 1. in the NEM, participants are backed by real tangible assets in the form of power stations and customer contracts. these tangible assets produce readily identifiable cash flow that create confidence that counterparties will be able to meet financial obligations; 2. NEM participants are less leveraged than financial institutions; 3. NEM participants don't have the risk of exposure to off balance sheet or contingent liabilities; 4. diversification - some participants are part of multinational energy companies. Their diversified earning stream provides a financial buttress that should be able to withstand shocks emanating from the NEM; and 5. the last resort arrangement protect the market from financial contagion.	
Origin	Origin is concerned that in developing a risk management framework, the AEMC has drawn heavily upon existing financial market frameworks without giving sufficient weighting to the differences between a centrally cleared financial market and the bilateral electricity OTC market that, underpinned by a physical market. The result has been a shift from assessing credit risk in the NEM to a focus upon participant liquidity and risk management requirements. Origin does not consider that the financial market principles are commensurate with the risks facing participants in the NEM or with the risks participants pose to other participants or the market as a whole.	
External regulation		
GDF Suez	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	Our considerations regarding external regulatory arrangements,

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	stakeholders. These measures include AFSL requirements administered by ASIC, prudential requirements administered by AEMO and other obligations imposed by banks and lenders.	including the AFSL-regime, are set out in section 4.2 of the report.
Origin	Origin considers the combined ASIC/AFSL requirements and standard practice for OTC contracts to be based on ISDA Master Agreements as adequate to manage counterparty exposure through the use of OTC contracts. The ASIC requirements ensure the participant has adequate financial resources, cash flow forecasts and risks management frameworks while the ISDA Master Agreements ensure the contracts are based on terms and conditions that are understood by participants. The AEMC has not identified any residual risk under these existing arrangements that could cause contagion or pose a risk to financial stability in the NEM.	
Accounting standards		
AFMA	AFMA considers that the AEMC should not explore accounting standards for OTC contracts. This matter sits properly within the expertise of the Australian Accounting Standards Board (AASB). The AASB has recently reviewed this area of reporting and replaced its earlier guidance on fair value measurement in AASB accounting literature with a single standard with effect on reporting periods from 1 January 2013.	Our considerations regarding accounting and auditing standards are set out in section 4.2.2 of the report.
AGL	There is no merit in exploring the accounting standards further in the assessment of the risk of contagion. The mark to market valuations required by the accounting standards are a valuable source of determining the credit exposures faced by a market participant. The methodology is prescribed by the accounting standards, so it does not vary significantly across the industry. However, even if the assumptions that participants use in their valuations differ slightly, the methodology is still reliable as it is externally audited and presented in the accounting reports of the participant. Hedge Accounting is irrelevant for the purposes of reviewing counterparty credit risk because it relates to how derivatives are reported, as opposed to how they are valued.	
EnergyAustralia	Energy Australia do not think there is value in the AEMC exploring the treatment and valuation of derivatives used for hedging purposes under the relevant accounting standard (AAS/IAS 39). The gestation of international accounting standards is a slow and complex process. Accounting standards are developed for a different purpose and are too restrictive to adequately cover the range of uses of derivatives for risk management purposes. For example, cap products are essential to prudent risk management for electricity market participants but do	

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	not meet the transactional definition of hedges for accounting purposes.	
Other		
AEMO	Considers that there may be a risk of claw back of settlement payments or credit support in case of insolvency, and consequently represents a form of systemic risk in the NEM. AEMO is currently exploring additional measures to further reduce the risk of claw back, including through coverage under the Payment Systems and Netting Act.	We consider this issue falls outside the scope of the present review.
AEMO	Notes that the abolition of the Energy Security Council may place greater pressure for the need to have an alternative scheme such as the Special Administration regime.	Our considerations regarding stability arrangements are included in chapter 7 of the report.
GDF Suez	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 four issues is important: the ability of market participants to correctly identify the level of interconnectedness with other market participants, to appropriately determine their credit trading limits, to assess credible stress test scenarios, and to appropriately set the level of reserves and available cash flow margins. While GDF Suez agrees that any NEM participant should give careful consideration to each of these factors, GDF considers 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.	Our considerations regarding participants' risk management practices are set out in section 4.1 of the report.
Origin	The AEMC's report does not clearly articulate the shortcomings in internal risk management practices, however, the Options Paper prescribes a policy framework for how participants should determine the robustness of internal risk management frameworks and practices without identifying why. This approach infers participants' risk management frameworks are inadequate without identifying what risks participants face or how those risks are currently managed.	
Origin	Origin supports the view expressed by the AEMC that the AEMO settlements process and the ASX 24 exchange would be unlikely to channel contagion between participants or represent a risk to financial stability in the NEM.	Our considerations on these matters are set out in section 2.3.2 of the report.

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Origin	Origin does not support the AEMC interpretation that the failure of large market participants can shrink liquidity in the contract markets and thus intensify the financial impact felt by other participants. Origin would contend, however, the other counterparty could not be another tier 1 participant. In this event, the failure of a large tier 1 retailer could create liquidity in the contract market, not reduce it. In addition, it is not clear how the AEMC can conclude there is limited liquidity in the NEM when total turnover based on the AFMA survey is three times annual NEM demand.	Our considerations on this matter are set out in section 4.1.2 of the report.
Origin	Origin does not support the contention that OTC electricity derivatives exist for the purposes of avoiding having to exchange an initial and daily variation margin or collateral. There are a number of reasons why in the NEM a need to post margin for OTC contracts to mitigate risk has not been identified by participants. These include: 1. Numerous generators are owned by state governments; 2. OTC contracts of a long duration may not be suitable for margining; 3. OTC contracts with generators of a lower credit grade may involve additional undertakings under the ISDA agreement; 4. A generator may have offsetting contracts or other strategies to manage counterparty exposure; and 5. physical side to each financial transaction.	Origin's points on the absence of a standard practice to exchange margins or collateral have been noted in section 2.3 3 of the report. Our considerations regarding the potential application of additional capital or margining requirements are set out in section 11.6.
Origin	A counterparty failure involving generation would be unlikely to create a significant or enduring supply/demand problem as the underlying generation asset is not impaired and is allowed to continue to operate in the NEM. Origin notes that the NER may need to be amended to maintain Financially Responsible Market Participant (FRMP) at the generation connection point. Under the NER the generation asset would be registered at the connection point with the participant acting as the FRMP. Following a default the participant would be unable to act as the FRMP under the NER for the generation asset through being under administration. Accordingly, the NER may need to be amended to enable an entity to act as the FRMP at the generation connection point to enable the generator to participate in the AEMO settlements process.	We note this point and consider it could be considered further if our recommendations made in chapter 9 were to be adopted.

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
Materiality of systemic risk		
General comments		
AEMO	AEMO does not take a view on the question posed by the AEMC as to the materiality of systemic risk or whether the G20 initiatives should be imposed in relation to NEM trades.	Our consideration regarding the potential for financial contagion occurring through financial interdependencies are set out in section 2.3 of the report. This also includes our considerations regarding the analysis by Seed Advisory.
AFMA	AFMA supports the conclusions reached by the Seed Advisory report that there is not a material risk of financial contagion in the NEM.	
AGL	AGL considers that the risk of contagion in the NEM due to a counterparty default is very low because the NEM is a very resilient and robust market. Throughout its 15 year history, the NEM has withstood significant financial pressures as a result of droughts, substantial outages, record heatwaves and financial collapses. There is no evidence to suggest that a counterparty default in the OTC electricity market is likely to result in financial pressures that are more significant than those that the NEM has survived.	
AGL	Considers that the risk of contagion is even more unlikely in the foreseeable future because there is less volatility in the NEM given the considerable oversupply of generation capacity that presently exists in the market.	
AGL	There is no evidence to suggest that there is a material risk of contagion or that the existing risk management frameworks utilised by participants are inadequate.	
Alinta Energy	While Alinta Energy believes the AEMC has undertaken a good job in analysing risks and risk management in the NEM at one level, the review has been unable to draw out any meaningful measure of “systemic” risk or credible incidence of likely contagion. In short, there is no market failure and the reluctance of the AEMC to draw this conclusion remains disappointing.	
EnergyAustralia	There is no need to define, quantify or track any new measures of systemic risk. The governance and regulatory framework under the NEL addresses systemic risks associated with the physical supply of electricity market and pool settlements.	

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ERM Power	ERM Power does not believe there is a material risk of financial contagion in the NEM. There has been no definition provided for 'material' risk, let alone a case made that this risk exists. The analysis by Seed Advisory demonstrates that the immediate loss as a result of the failure of a large derivative counterparty would not be enough to result in further contagion and systemic risk to the NEM. ERM notes the Commission's own analysis in the Options Paper also seems implicitly supportive of the position that there is no material risk of financial contagion in the NEM; at least non which can be identified and prevented without unnecessary cost.	
ERM Power	ERM Power believes that the debate needs to refocus on a pragmatic assessment of material systemic credit risk in OTC electricity derivatives, specifically to discover if it exists, where it comes from (if indeed it does exist) and what realistic and appropriate means of avoiding or managing risk might be proposed. Without a more evidence-based approach to this issue, the cost of unnecessary interventions will be high, potentially even leading to the market participant failures that we are concerned to avoid.	
ESAA	The paper notes that a failure in the electricity financial markets will not have an impact on the broader financial sector, but could impact the economy through affecting the supply of electricity. It is this broader impact that the paper argues represents a systemic risk. Electricity financial markets are not an essential service, they merely help manage the risks in the physical market. If there is an adverse event in the electricity financial markets it will not impact the physical supply of electricity to consumers. As such, it is hard to see how the OTC market could cause systemic risk.	
GDF Suez	GDF Suez is not satisfied that a convincing argument has been established that a material risk of contagion exists, or why any change is required. 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 failures, multiple generating unit failures 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.	
GDF Suez	GDF Suez mentions the Seed Advisory report, submitted by ESAA. According to GDF, the	

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	Seed 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.	
Intergen	The risk of contagion is mitigated by the very nature of the physical market of the NEM. All participants are motivated to ensure that the market continues during times of financial stress.	
NGF	In the NGF's view, the risk of financial contagion in the NEM is low. NGF refers to the analysis conducted by Seed Advisory. Therefore, the NGF sees little need for the imposition of any additional regulatory measures and stress that any proposed measures be proportionate to the magnitude of clearly demonstrated issues.	
NGF	The AEMC has not presented any specific and verifiable evidence to suggest cause for any heightened concerns regarding the NEM or identified any market failure within the Australian context that warrants policy intervention. In fact, extensive modelling performed by Seed Advisory shows that even in worst case scenarios, the risk of financial contagion is low.	
NGF	The Australian energy industry, and more specifically the varied means by which NEM participants manage the risk exposures in their large and diversified portfolios have proven robust through difficult spot market circumstances including sustained high spot prices in 2007, through droughts and bushfires, and highly publicised fuel supply shocks since then.	
NGF	Market forces place appropriate discipline on participants, especially large players, to ensure appropriate risk management practices are developed, implemented and maintained. In formulating its views, the AEMC appears to have overlooked the role of these wider market forces in defining the level of systemic risk in the Australian electricity market.	
Origin	Origin supports the work undertaken by Seed Advisory to assessing and quantifying the level of systemic risk in the NEM. Seed concluded the failure of the largest counterparty of a large vertically integrated retailer would be unlikely to cause contagion or systemic risk in the NEM based on the reported profits and cash flow of the vertically integrated retailer.	
Origin	Origin does not support the concern raised by the AEMC about high replacement costs for OTC contracts following a counterparty default. Origin notes that offsetting the cost of wholesale	

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	spot market or hedge contracts is the ability of retailers to pass wholesale energy costs through to consumers. The wholesale cost component for retail customers on regulated tariffs are determined annually so higher market costs could be passed on to mass market customers on market contracts in a reasonable timeframe.	
Origin	Origin considers the AEMC has not identified or quantified any risk to financial stability in the NEM. The AEMC outlined factors it considered could contribute to contagion and financial stability in the NEM but failed to explain how each of these factors was applicable to the NEM.	
Concentration		
AGL	The market is not as concentrated as the AFMA survey states because the survey does not include data from all the major market participants. In reality, there is a much greater diversification of trading between participants.	Our considerations on this matter are set out in section 4.1.2 of the report.
ERM Power	The AFMA data on concentration in the market do not name the parties, which raises questions about their relevance to NEM resilience. For example, if the key parties are large and diversified banks, trading in the NEM would not present a risk of them failing; therefore there would be no risk of contagion.	
Origin	Origin is concerned that the contagion risk appears to be overstated in the report, due to an assumption that OTC trades are highly concentrated between tier 1 participants. As the AFMA survey suggests tier 1 participants are likely to be a counterparty to a high proportion of OTC trades. It does not follow, however, that most of these trades are likely to be between tier 1 participants. Tier 1 retailers are all "short" physical generation and so likely need to trade significant volumes with a range of generators to manage their market risk.	
How to measure systemic risk		
AGL	AGL considers that the key factors to consider in assessing the likelihood of systemic risk (contagion) in the NEM are the following: • size of immediate loss. In the case of the electricity market, this is four weeks of derivative payments. AGL considers that the modelling by Seed Advisory demonstrates that this loss	While the possibility is uncertain, there is a risk of financial contagion occurring through OTC contracts. Whether or not this would occur

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	is not of a magnitude that is likely to result in contagion. Losses that are crystallised over the medium term such as the replacement cost of hedges are not as material in causing immediate contagion because participants have considerably more time to deal with these losses. • credit risk management. AGL considers that market participants manage their counterparty credit risk in a comprehensive manner. Fundamentally, they are aware of their interconnectedness with their counterparties through frequent mark to market reporting. They monitor on an ongoing basis the credit worthiness of their counterparties through regular assessments of their counterparties and they implement credit support requirements, credit exposure, trading, maturity and duration limits based on these assessments. • market concentration. AGL considers that the degree of market concentration in the NEM is not of concern. The market is not as concentrated as the AFMA survey suggests. Counterparty credit exposure is not concentrated between the big three vertically integrated retailer participants but sufficiently diversified across the NEM with an appropriate level of natural hedge contracting between retailers and generators.	would depend on a broad spectrum of variables and the unique circumstances of individual market participants at the time. See section 2.5 of the report.
AGL	Factors that are not necessarily relevant in assessing the likelihood of contagion are as follows: • turnover of OTC contracts compared to the total demand in the NEM. A greater total turnover of OTC contracts compared to total demand does not mean market participants are speculating. Firstly, reporting both sides of a hedge derivative contract for a single quantity of electricity demand immediately provides a misleading representation of contracting activity. Secondly, high aggregate turnover does not necessarily reflect speculative behaviour. Moreover it represents active risk management. • Bank and intermediary involvement. It is not accurate to presume that bank and other financial intermediary's low participation in the OTC contract market creates a market of higher risk. On the contrary, a greater involvement by financial intermediaries that engage in speculative trading across multiple markets may actually increase the risk of contagion, because if an intermediary is exposed to a default in an unrelated market, this risk of contagion could spill into the electricity market. • collateralisation. Regulating the degree of collateralisation should be approached with caution. Greater collateralisation may exacerbate the risk of contagion by increasing cash	

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	flow pressures. It may also result in participants exposing themselves to a greater market risk as it increases the cost associated with hedging.	
ERM Power	The value of open OTC positions is not an appropriate method for measuring the materiality of systemic risk, as it does not take into account what other measures the participant has; for example, an open OTC position may be offset with a contract on the ASX and so mean no net risk for the participant.	
GDF Suez	GDF Suez acknowledges that the aggregate gross amount of all OTC and ASX contracts is likely to exceed the underlying NEM demand. According to GDF Suez, this occurs due to: • participants typically have multiple trades with multiple counter parties, some of which balance each other out. Participants adjust their position 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; • 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). 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.	
Assessment framework		
General comments		
AEMO	AEMO supports an assessment framework centred on the NEO as identified in the options paper.	The assessment framework for preparing our recommendations in this report is set out in section 1.3 of the report.
AFMA	This review raises an important question on whether there currently is an optimal regulatory oversight regime for dealing with NEM financial resilience. The AEMC needs to clearly identify and demonstrate the potential for a material risk of market failure before making recommendations to intervene with additional regulation. While AFMA is not advocating for	

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	change it is possible that such analysis could lead to a rationalising of regulatory oversight. For example, the role of ASIC might be deemed redundant and a recommendation made to exempt electricity derivatives from the definition of financial product could be made.	
AGL	AGL broadly agrees with the factors forming the assessment framework. AGL notes there is no evidence to suggest that the overall risk management framework in the NEM is inadequate. Internal risk management mechanisms must comply with various external requirements, such as ISO standards and requirements associated with holding an Australian Financial Services License. In addition, ASIC has extensive regulatory oversight over OTC derivative market activity. If any additional measure is to be implemented, it must be proportionate to the low risk of contagion.	
Alinta Energy	Alinta Energy supports the assessment framework in the options paper whereby interventions in the market should only be justified where clear failures can be demonstrated and interventions would be consistent with the National Electricity Objective.	
ENA	Network businesses operations depend significantly on there being a high level of confidence in the financial credit arrangements that support the physical delivery of electricity to customers. Therefore the assessment of the options must also include consideration of any implications to network businesses.	
EnergyAustralia	EnergyAustralia supports the assessment framework proposed in the options paper. Interventions should address a well-defined problem, demonstrate that the benefits outweigh the costs, and be consistent with the NEO. They should address a clearly identified market failure and be proportionate to the nature of the problem.	
ERAA	The ERAA supports the assessment approach, as the cost of unnecessary regulations can be high. In the case of the market for OTC electricity derivative markets, there is no case for new obligations or restrictions. The existing market and regulatory frameworks are robust and suitably transparent, and risk management practices have shown to be adequate.	
ERM Power	ERM is largely supportive of the Commission's approach to date and supports the Commission's assessment framework, outlined on p44 of the Options Paper.	

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ERM Power	ERM however does have some concern that other aspects of the Commission's analysis may be unrealistic, depending on how they are addressed in further consultation. ERM refers to the four questions mentioned on p10 of the Options Paper. While ERM agrees these are good questions, ERM cannot see how an external party such as the Commission, or a regulator, is going to know the 'correct' answers.	
GDF Suez	GDF Suez supports the proposed assessment framework as described by the statement on page 44 of the Options Paper. GDF Suez considers this framework is appropriate as it recognises the need to firstly establish that a deficiency exists which results in material risk of contagion, and that a measure is available which will promote the NEO.	
GDF Suez	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. 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.	
NGF	The NGF agrees with the AEMC's framework for assessing potential options. The NGF is surprised this framework was not used to analyse the proposed solutions within the Options Paper. The NGF requests that any further proposed options are assessed by the AEMC against this useful framework.	
Systemic importance		
AFMA	The three criteria of size, lack of substitutability, and interconnectedness provide a useful analytical device to structure the assessment of systemic importance participants.	Our considerations regarding the criteria for determining whether a participant is of 'systemic importance' are set out in section 6.1 of the report.
AGL	If any measure should be implemented, it should apply to all participants in the NEM, not just those that are considered to be 'systemically important', as determining who is 'systemically important' is very subjective.	
ERM Power	ERM agrees with the Commission's definition of 'systemic importance' for the NEM as referring to "those participants whose failure could potentially lead to financial contagion in the NEM."	

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Hedging exemption		
AGL	It would be ideal if the measures exempted hedging behaviour. However, while AGL contracts in the electricity OTC derivative market for hedging purposes, it is noted that a minority of market participants engage in a small degree of speculation in addition to hedging. Therefore, there may be some complexity in distinguishing some hedging behaviour from speculative behaviour in relation to those participants.	We have taken account of the use of OTC derivatives for the purpose of hedging market risk when considering the potential application of additional measures regarding risk management and transparency, including the G20 measures for OTC reform. Our draft recommendations and draft advice on these matters are set out in chapters 10 and 11 of the report.
EnergyAustralia	The preferred outcome should be for electricity derivatives remain exempt. If the exemption is not maintained then an exemption should be provided for OTC contracts entered into for the purposes of hedging. A risk management definition of hedging should be used for this purpose rather than the accounting standard.	
ERM Power	ERM would support an exemption to some of the G20 requirements for OTC contracts entered into for the purpose of 'hedging', like in the EU and the US. ERM acknowledges that it may not always be easy to distinguish between 'hedging' and 'speculation' and requests that the Commission examine how the US and EU regulators define 'hedging' for the purpose of the exemptions.	
Potential options – general comments		
AEMO	AEMO is concerned that the options paper may have prematurely restricted the range of potential measures based on a preliminary assessment that is not consistent with the assessment framework. An example is central clearing. This options appears to have been dismissed on the basis of cursory analysis which rests on a number of untested assertions. For example, concerns that central clearing may have limited use given the often bespoke nature of OTC contracts may potentially be addressed through the Swap and Option Offset Reallocations (SOOR). A more balanced approach would seek to identify a design which maximises the full range of benefits for NEM participants and the NEO, then to weigh up the upsides and downsides.	We have considered various potential measures regarding risk management and transparency. Our considerations regarding the potential application of such measures in the NEM are contained in chapters 10 and 11 of the report. In section 11.5, we note the potential benefits from combining and offsetting spot and OTC transactions and spot and futures transactions. We consider such

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		mechanisms are best developed by industry itself and we noted AEMO and ASX's recent initiatives in this area.
AGL	Many of the measures identified in the Paper to mitigate the possibility of contagion may actually have adverse impacts on the market and compromise the NEO. The costs of the options also outweigh the benefits.	In considering the potential application of additional measures regarding risk management and transparency, we have taken into account potential effects of the measures on risk management incentives, and have also had regard of the costs associated with these measures. Our considerations regarding the potential application of additional measures regarding risk management and transparency, including the G20 measures for OTC reform, are set out in chapters 10 and 11.
EnergyAustralia	No prima facie case has been made to support the design and implementation of new regulatory interventions. No market failure has been identified. All potential options create new distortions and impose new costs without apparent benefit. The NEM and associated financial markets provide strong commercial incentives for participants to manage their risks. The Corporations Act provides a robust governance, licensing and regulatory framework for the operation of the electricity derivative market.	
ERM Power	Regulating OTC markets only introduces more risk and cost. This can be in the form of the market risk from unhedged positions when OTC electricity derivative contracts are made sufficiently unattractive to market participants, cash flow risk from potential margining requirements, or the increased costs from inefficient hedges if OTC contracts are forced into standardised forms. Reduced use of the OTC market also will reduce its liquidity, which will only cost participants more (and eventually consumers).	
ERM Power	Financial contagion is always possible under very specific circumstances, but ERM suggests that these circumstances are highly unlikely and the costs of trying to avoid these circumstances through new policy measures will outweigh the benefits. Such actions will not support the NEO.	
ESAA	Before any additional regulation is applied to the sector it needs to be established that there is a material risk that OTC contracts could spread financial contagion leading to a systemic failure. If this found to be the case, the benefits of the proposed solution need to outweigh the costs.	

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ESAA	ESAA believes that the proposals in the paper will have an adverse impact on businesses ability to manage their risks. Any attempt to push businesses towards one element of the risk triangle limits their ability to be in the best place, optimising risk against the three elements as circumstances change. There is a risk that options such as trading reporting and margining will reduce the use of OTC contracts. Ultimately any option that limits the ability of businesses to manage risk has to increase prices.	
ESAA	Further, if measures are adopted that increase the amount of capital businesses have to hold on their balance sheets and/or impose greater regulator costs it is likely to lead to greater concentration in the sector, as only large businesses will be able to cope.	
GDF Suez	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.	
GDF Suez	Increasing the regulatory burden of risk management in the NEM will deter participant competition and lead to increased market concentration.	
Intergen	Options have potential to create new distortions, impose additional costs and exacerbate participants' risk, disproportionate to the benefits that may be gained. InterGen is concerned that implementing additional compliance measures may dissuade prudent use of existing hedging avenues and in doing so increase the market instability risk.	
NGF	The NGF is concerned about the potential unintended consequences of policy intervention which does not address acknowledged problems. These consequences include adding to electricity market costs and altering the current distribution of risks (for example converting credit risk into cash flow risk). The NGF believes that overall electricity market risk is most cost effectively managed through a well-functioning, liquid derivatives market which has a minimum regulatory burden.	
NGF	The NGF is concerned with the AEMC’s overall approach to conducting stage two of the review. According to the NGF, the majority of the Options Paper focuses on options without	

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	providing any meaningful discussion on defining the problem or its magnitude. The NGF is concerned that the current process is likely to result in the development of policy solutions that are inappropriately targeted and likely to result in unintended negative market consequences.	
Alinta Energy	While stage two of the review has yet to conclude, it is clear the analysis which purports to justify the examination of the range and scope of possible interventions contained in the options paper is insufficient to recommend such further interventions.	Our considerations regarding the potential application of additional measures regarding risk management and transparency, including the G20 measures for OTC reform, are set out in chapters 10 and 11.
Alinta Energy	As the Government will consider the AEMC's advice before determining the treatment of electricity derivatives, the AEMC needs to quickly draw conclusions on the costs, benefits and risks of extending the G20 measures to electricity derivatives. It remains unclear why this stage of the review has yet to conclusively determine that the G20 derivative reform agenda should not be extended to the energy sector and that current regulatory powers are adequate.	
Alinta Energy and GDF Suez	According to Alinta and GDF Suez, the Seed Advisory report makes a number of important conclusions: • 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 with the existing market and regulatory frameworks being robust and suitably transparent. • Margining reduces credit risk but creates other costs and risks and hence it is not appropriate for all circumstances and should not be mandated. • Reform proposals should prioritise changes to electricity market design likely to affect the market's performance in the event of a default. These are not major reforms but targeted areas, such as reforming the ROLR arrangements and ensuring a generator is able to participate in the market while in administration.	Our considerations regarding the analysis by Seed Advisory are included in section 2.3 of the report. Our considerations regarding the potential application of additional measures regarding risk management and transparency, including the G20 measures for OTC reform, are set out in chapters 10 and 11. Our recommendations regarding improvements to the ROLR scheme are set out in chapter 8 of the report. Our recommendations regarding market suspension in the NER are set out in chapter 9 of the report.
Alinta Energy	Alinta Energy concludes that the risks and costs associated with imposing central clearing,	In considering the potential

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	trade execution and increased capital requirements for non-centrally cleared derivatives would outweigh the benefits. There are already incentives to apply margining requirements and use of trading platforms where considered appropriate.	application of additional measures regarding risk management and transparency, we have had regard of the costs associated with these measures. Our considerations regarding the potential application of mandatory central clearing, trade execution and increased capital requirements are set out in chapter 11 of the report.
ENA	In the ENA view, there is significant benefit in exploring measures to embed a principle based framework of risk mitigation strategies to prevent ROLR events from occurring. We consider that measures aiming at improving financial reporting and transparency of financial credit arrangements will assist in the early identification and possible prevention of ROLR events.	Our considerations regarding transparency measures are set out in section 10.4 of the report. Our considerations regarding trade reporting as understood under the G20 reforms are set out in section 11.4.
ERM Power	Experiences in the financial services industry have translated into policy assumptions for the OTC market (and the NEM), such as: • the OTC electricity derivative market is not sufficiently transparent, which means there is unnecessary and unmanaged risk of financial market contagion from counterparty failure; • if there was greater transparency about OTC electricity derivatives, the market and its regulators could somehow do things differently to avoid potential crisis; and • policy measures to support further regulatory intervention (potentially including margining requirements) or oversight of OTC electricity derivatives will reduce the risk of financial contagion in the NEM. In ERM's view the assumptions above, the links between them, and most of the policy measures proposed to date under (c), are not valid.	We have taken account of the differences between the financial sector and the electricity sector when considering the potential application of additional measures regarding risk management and transparency, including the G20 measures for OTC reform. Our draft recommendations and draft advice on these matters are set out in chapters 10 and 11 of the report.

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ESAA	A significant proportion of the costs from the failure of a counter party occurs after the event. To ensure these costs don't impose financial risks on the sector, retailers need to be able to pass on any increase in costs to customers, as all money in the sector comes from customers. As such, deregulated retail prices are a key risk management tool.	Noted. The matter of retail price deregulation is outside the scope of this review.
NGF	The Options Paper draws on international arrangements to frame some of the options. Differences between the Australian energy market regulatory settings relative to the arrangements applying in other jurisdictions means these measures are unlikely to deliver equivalent outcomes.	Although international examples could provide useful guidance, we have taken account the specific characteristics of the Australian electricity market when considering the potential application of additional measures regarding risk management and transparency, including the G20 measures for OTC reform. Our draft recommendations and draft advice on these matters are set out in chapters 10 and 11 of the report.
NGF	The AEMC has stated that the objective of the review is not to recommend measures that would support businesses that are otherwise destined for financial failure. Some of the options, however, seem at odds with this statement and are targeted at preventing the initial failure of a business.	The objective of the review is not to prevent an individual participant failing or leaving the market. Rather the focus is on the financial stability of the NEM and how market arrangements responds to and manages the impacts of a participant failure. We have assessed the options in light of this objective.
Potential options – do nothing		
Alinta Energy	Alinta considers that the AEMC should recommend option 1 from the options paper: no new	Our considerations regarding the

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	measures. This options is consistent with the quantitative analysis in the Seed Advisory report and analysis in the options paper that the market is sufficiently transparent, there are strong governance and regulatory frameworks in place for the physical market and for the financial market, ASIC can access all information about participants risk management process, futures and OTC positions at any time under their existing surveillance and licensing powers, and the NEM has proven robust in the face of failures over the course of the past 15 years.	potential application of additional measures related to risk management and transparency, including the G20 measures for OTC reform, are set out in chapters 10 and 11 of the report.
EnergyAustralia	Based on the analysis conducted to date the recommended option should be that no new measure be introduced. The OTC electricity market is sufficiently transparent and there is little scope for protracted mispricing of OTC's as they derive their inherent value from a highly liquid and transparent electricity spot market and complement a transparent futures market. Participants actively manage counter-party credit risks and the market provides strong incentives for them to do so.	
ERAA	The ERAA does not believe that consumers would benefit from new regulations to address systemic financial risk in the NEM. Further regulation of OTC electricity derivative contracts in the ways suggested may result in reduced use of this market, decreasing liquidity and thus increasing costs. Structured OTCs are important for new entrant retailers, and these costs will increase barriers to entry and stifle competition. The ERAA believes that Option 1 will best serve the long term interests of consumers in the NEM.	
ERM Power	ERM supports Option 1 (no new measures), for two reasons: 1. unlike in the financial services industry, the use of OTCs and on-exchange contracts in the NEM is underpinned by physical positions in the market. concerns that some have about financial contagion in the NEM should be tempered by a recognition of this fundamental point of difference from the financial services industry. 2. Retailer and generator trading and risk management are already highly regulated, both externally via AFSL requirements, accounting standards and Corporations Law, and internally via businesses' credit management policies to manage both commercial risk and compliance requirements.	
InterGen	Option 1 - do nothing - is InterGen preferred outcome. Market arrangements are robust and it is conceivable that participants will continue to innovate their own risk management practices in	

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	tune with future developments in the NEM.	
NGF	The NGF has endeavoured to assess each of the proposed options against the assessment framework outlined in the Options Paper. In the NGF's analysis, only Option 1 (status quo/no new measures) meets the assessment criteria. Option 4 (code of practice) may meet the criteria in some circumstances but would have the potential for negative consequences. All the other options do not meet the criteria in the NGF's analysis, while entailing serious negative consequences.	
Origin	The AEMC has not identified any inadequacy or deficiency with the current internal and external risk management mechanisms to mitigate contagion. On this basis, the imposition of additional regulatory requirements could impose costs on participants and reduce overall efficiency in the NEM. Origin believes, however, in continual improvement and recognises enhancements could be realised under existing regulatory requirements, for example ASIC licensing requirements as a condition of holding an Australian Financial Services Licence including surveys and assessing internal risk management frameworks.	
Central clearing and platform trading		
Central clearing		
AFMA	Non-standardised OTC electricity derivatives play a central role in risk management and in business decision-making that cannot be filled by standardised clearable instruments. OTC derivative transactions provide their participants with the ability to isolate, manage and efficiently match or offset a particular risk or set of risks. If participants are forced to shift away from using non-cleared derivatives and instead employ imperfect hedges, they will be faced with residual unwanted risk. OTC derivative transactions are inherently valuable to businesses because of their non-standardised nature. The addition of constraints or removal of the current flexibilities of the OTC market would represent a loss of capability and would reduce participants' ability to manage their own risk.	Our considerations regarding mandatory central clearing of OTC transactions for the electricity sector are set out in section 11.5 of the report.
AFMA	Central clearing of all standardised OTC derivatives would be harmful to the electricity sector. Firstly, it would force standardisation of OTC contracts, with the adverse consequences articulated above; and secondly add significantly to the credit collateral requirements for	

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	market participants. This requirement would be an inefficient use of limited collateral, with no material benefit to market participants or consumers. To put the collateral requirements into context, for a contract position of 10TWh that was exchange traded, the initial margins required would be $32M and a $5/MWh adverse movement in price would require a further $50M in variation margin.	
AFMA	Standardised centrally cleared/exchange traded products are complementary to the OTC market. They have advantages and disadvantages and participants should be allowed the flexibility to utilise both market arrangements to optimise their risk management activities. There would be a significant loss of market functionality and efficiency if participants were required to use a standardised and credit collateral intensive market environment when this is unsuited to their business needs.	
AGL	AGL considers that a central clearing requirement is an inappropriate measure for the OTC electricity market. It requires a high degree of standardization. However, the NEM is a dynamic environment and necessitates bespoke derivative products to hedge the risk. Hence requiring all OTC products to be highly standardized would make it difficult for participants to manage the underlying risk in the NEM. Furthermore, central clearing will exacerbate the risk of contagion in periods of high volatility because of margining.	
ERM Power	ERM supports the Commission's view that there is limited merit in platform trading and central clearing for electricity derivatives. ERM believes there is no merit at all in these approaches being mandated for electricity derivatives, for the reasons outlined by the Commission.	
Macquarie Generation	Macquarie Generation is strongly opposed to any option that involves central clearing of all OTC derivatives. Such standardisation would limit the ability of traders to design specific contracts which are mutually beneficial and would require collateralisation.	
NGF	The NGF agrees with the AEMC in dismissing the option of mandatory centralised clearing of all OTC derivatives.	
Platform trading		

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AGL	A mandatory electronic trading platform is an inappropriate measure for the OTC electricity market. It requires a high degree of standardization. However, the NEM is a dynamic environment and necessitates bespoke derivative products to hedge the risk. Hence requiring all OTC products to be highly standardized would make it difficult for participants to manage the underlying risk in the NEM.	Our considerations regarding mandatory platform trading for the electricity sector are set out in section 11.7 of the report.
ERM Power	ERM considers there is limited value from using electronic trading platforms (other than the exchange) to conduct OTC transactions. ERM values the bespoke nature of OTC contracts as they provide the necessary efficiency in hedging and also does not see the value in developing electronic platforms in competition with the exchange.	
Potential Options – trade reporting		
AFMA	AFMA considers that hedging activities by end-users should be exempt from reporting entirely as there is no significant net benefit to the economy from increasing the coverage of reported electricity derivative transactions. It is unclear how effectual use could be made of OTC electricity derivatives data for systemic risk analysis under current supervisory arrangements for NEM participants.	Our considerations regarding trade reporting of OTC transactions for the electricity sector are set out in section 11.4 of the report.
AGL	AGL considers it is questionable whether the level of transparency gained from the trade reporting rules justifies the excessive cost. The cost may put pressure on the price of electricity to rise. It may also affect competition by increasing the barriers to entry for new entrants. Trade information would be of limited value to market participants because it would need to be on a more restricted basis than larger markets, as there would be a greater risk of disclosing commercially sensitive information in a small market such as the NEM.	
Alinta Energy	It appears the driver for mandatory reporting may be more closely aligned with energy sector governance body and regulator curiosity than any benefit to the market. While trade reporting can be suggested to be light-handed, it is anything but the case.	
Alinta Energy	Mandatory reporting will be difficult to implement, creates centralisation risk of commercially sensitive information, and is likely to be very difficult to analyse or make sense of. For instance, the derivative transaction information in the trade repository would provide little or no	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	information about the risk position of electricity market participants. A generator would be naturally long, whereas a retailer naturally short; their derivative position is not particularly meaningful without an understanding of their physical position. Trade reporting as conceived by the G20 derivative reform agenda is not viable.	
ENA	There is significant benefit in exploring measures to embed a principles-based framework of risk mitigation strategies to prevent ROLR events from occurring. Measures aimed at improving financial reporting and transparency of financial credit arrangements could achieve this and will likely assist in the early identification and possible prevention of ROLR events.	
EnergyAustralia	Mandatory trade reporting would create significant regulatory burden for participants and require costly investment in IT systems to facilitate daily reporting of over 70 data fields for every derivative transaction. It would provide no benefits to electricity consumers or market participants. The derivative transaction information in the trade repository would provide little or no information about the risk position of electricity market participants. A generator would be naturally long; a retailer naturally short; their derivative position is not particularly meaningful without an understanding of their physical position.	
ERM Power	It is a truism that more information should improve transparency, but the problem is that it is not this easy. The notion that trade reporting addresses NEM resilience though increased transparency involves rather optimistic assumptions of the capacity of market regulators (and other participants and observers) to observe, assimilate and act on this significant dynamic data set to prevent or otherwise mitigate systemic risk across the NEM. When combined with the administrative burden on market participants, trade reporting as proposed is clearly an inadequate and costly measure.	
ERM Power	ERM Power believes that the Commission and any participants in this consultation process should go through a process of real reflection on what is possible rather than what might be 'nice to have' in a perfectly rational future world. The energy sector is a complex environment and the assumption that this can be rendered clear and manageable to external parties if only there was more data is wrong.	
ESAA	There would be up front and ongoing costs to market participants to comply with trade reporting. ASIC can already access any information they need to allow them to make a	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	judgement about the risk in the market. As there does not appear to be a need to have near real time information provided to ASIC, the additional costs of trading reporting are not justified. Further refinement of the current survey process would represent a more fit for purpose approach to reporting.	
GDF Suez	In the competitive NEM, increased 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.	
GDF Suez	It would be extremely difficult and costly to introduce trade 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. Moreover, 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.	
InterGen	InterGen concerned that trade reporting could lead to inappropriate regulatory interventions on the basis of incomplete understanding of participants' true exposure to risk. InterGen is also concerned that trade reporting will weaken its ability to deal in the OTC market if data is publicly released in other than very high level summary form.	
Macquarie Generation	Transparency in not as vital in the NEM as for other financial markets because governments can intervene to direct physical assets and therefore such instability is unlikely to have wider implications for the boarder economy.	
Macquarie Generation	Standard reporting format will not be able to adequately capture the tailored, contingent or complex terms in many OTC contracts. Incomplete trade reporting will misrepresent the market and credit risk exposure. Also Macquarie questions the ability of any regulator to keep track and make sense of such data during periods of market volatility as businesses adjust their contract positions.	
Macquarie Generation	Macquarie Generation has concerns about publication of any OTC contract data. Could be misleading and could also lead to commercial gain or disadvantage by participants gaming the	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	reporting to give a false picture of other participants.	
Origin	It is not clear how trade reporting could promote financial stability or efficiency in the NEM. While trade reporting could enhance transparency, transparency is limited to the OTC position itself. Reporting an OTC positions does not provide insight into a participant's overall position, it does not take account of retail load, physical generation, etc.	
Origin	Trade reporting would also impose a direct cost on participants with having to established systems to enable reporting to a repository. ASIC has noted that it considers USD $292,771 as a reasonable approximation for set-up costs and USD $42,759 as a reasonable approximation for ongoing costs. Origin understands that, based on financial intermediary's implementation costs for complying with reporting requirements that these figures are conservative and implementation costs could be substantially higher.	
Alternative to trade reporting		
AEMO	AEMO put forward an alternative model to the trade reporting option included in the options paper. This model includes AEMO operating a trade repository function. AEMO asserts that a trade repository operated by AEMO could be provided at cost, and has the potential to be used in conjunction with AEMO's swap and options offset reallocations, thereby facilitating netting of OTC and physical positions in the clearing process. AEMO encourages the AEC to keep options of this type open when developing and reporting its findings report to SCER on the FMR and seeks AEMC support for AEMO to further consider broader options of this type with NEM stakeholders.	See section 11.5 of the report.
AGL	AGL considers that an alternative option could be a refined version of the OTC Derivatives Survey that was conducted by ASIC, APRA and the RBA (the agencies) this year. AGL considers that the survey would provide the agencies with transparency of counterparty credit risk management in the NEM, without the excessive cost of the G20 trade reporting reform. ASIC can use its existing powers to enquire about the data collected from the survey to gain a better insight into the practices and behaviour of participants. AGL would only recommend that the questions be more refined so that they are better tailored to the electricity industry.	Our considerations on this matter are set out in sections 10.4 and 11.4 of the report.

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
Alinta Energy	Alinta Energy does support refinement of data collection arrangements already used by the ASIC; however, this is not dependent on any action by the AEMC and reflects the status quo where ASIC continues to develop and refine its energy market participant surveys as it engages with the industry.	
EnergyAustralia	EnergyAustralia suggest an alternative to OTC trade reporting where ASIC undertakes a regular survey of participants OTC positions would deliver similar transparency at a fraction of the cost. ASIC can report non-commercial aggregated data as required.	
ERM Power	The only policy option ERM can support is a refined version of the existing annual OTC Derivatives Survey, jointly conducted by APRA, ASIC and the RBA (the agencies). The survey already covers a number of the issues around business process, mark to market exposure and counterparty credit risk. Several of the existing questions in the survey could be refined for the electricity industry, which we expect is a matter for the agencies to directly address with the industry. The survey as suggested does not bring with it the high costs of trade reporting as currently contemplated, or the risks of reducing use of OTC electricity derivatives through margining requirements or standardisation. It also does not put the industry and the regulator in danger from misunderstanding or misconceptions about the nature of risk in the NEM, which would arise from stress test reporting.	
ESAA	ASIC, as part of its governance of AFSL holders, already has the power to request that a market participant provide its hedge book and risk management manuals. Rather than imposing new regulatory burdens or capital costs, ESAA suggests ASIC continues to work with industry to improve their survey to ensure ASIC has sufficient information to assess the risks in the market.	
GDF Suez	Should the AEMC form the view that some measures are necessary, GDF Suez 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. GDF Suez believes that this is more likely to lead to a balance between transparency and ensuring the	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	ongoing effectiveness of OTC contracts as an important risk management instrument.	
Potential options – mandatory stress testing		
AFMA	AFMA does not support mandatory stress testing as it is likely to impose significant distortions and costs. It would effectively act as a prudential standard and distort participant risk management decisions towards the stress test and specific risks when a portfolio approach would otherwise be appropriate. Further, it is unlikely that any one test would be applicable to all entities or capture information regarding their key risks.	Our considerations regarding mandatory stress testing are set out in section 10.3.2 of the report.
AGL	AGL considers there are three main concerns with mandatory stress testing. Firstly and most importantly, it is unclear how effective an externally administered stress testing regime would be in reducing the risk of contagion. Secondly, it is not feasible for an external body to devise a stress test scenario that would be appropriate for all market participants. Thirdly, the proposed stress testing regime included an assessment of cash flow projections. This borders on prudential regulation, which AGL considers to be outside the scope of this review.	
Alinta Energy	Mandatory stress testing, option 3, sounds appealing in its simplicity but in actual fact it is likely to impose significant distortions and costs. It would effectively act as a prudential standard and distort participant risk management decisions towards the stress test and specific risks when a portfolio approach would otherwise be appropriate. Further, it is unlikely any one test would be applicable to all entities or capture information regarding their key risks.	
EnergyAustralia	EnergyAustralia does not support this option as it likely to impose significant distortions and costs. It would effectively act as a prudential standard and distort risk management decisions. It could lead to moral hazard by reducing incentives for prudent risk management as participants rely on the regulator to manage counterparty risk. EnergyAustralia also considers that stress testing obligations will not significantly increase transparency for the regulator as ASIC can already access relevant information.	
ERAA	In regards to mandatory stress testing (Options 3 and 6), this approach may seem desirable on first glance, although it will actually create significant risk for both the industry and the relevant regulator. Achieving consensus on credible stress test scenarios is likely to be particularly challenging. Of greater concern is the implication that a regulator will be in a better position to	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	judge the effectiveness of complementary risk measures developed by professional risk experts in the businesses, which would seem improbable.	
ERM Power	Mandatory stress testing is the only option that provides a NEM-wide view of risk management, and so we can see that it is worth considering. A challenge with this option – whoever it is applied to – is in its design, and how to overcome the problems of this only ever being a 'snapshot' rather than an ongoing tool (which it cannot be by definition).	
ERM Power	The biggest problem is not that mandatory stress testing provides a snapshot but that it will put businesses and regulators in impossible positions. No regulator is in the position of knowing better than industry what constitutes a 'correct' level of interconnectedness as per (a) on page 10 of the Options Paper, or better judging trading credit limits to 'appropriately mitigate the risk of contagion occurring' as per (b). There is definitely no way for a regulator (or a business) to 'confirm that the business can survive the impact of another market participant failing' as per (d) given the range of factors involved.	
ERM Power	Moreover, ERM expects it may be impossible to develop a credible stress test that can: • test for extreme negative coincidental events; while • reflecting reasonable expectations of market risk approaches (that accept risk on some level), and also • providing confidence to policymakers that risk in the NEM is manageable and politically acceptable.	
ESAA	External stress tests can be challenging to design as there is a risk that they are either set too low and become meaningless or too high/unrealistic such that no business would likely pass. A question arises of who should develop/administer a stress test. Given ASIC's current role and powers it would seem to be the most suitable body. But ASIC already has the power to request the necessary information to assess the risk levels of individual participant and through this, the market as a whole.	
GDF Suez	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	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	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.	
GDF Suez	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.	
InterGen	Not supported by InterGen. Mandated stress testing will act as a quasi- prudential standard that imposing costs for minor information benefit and would raise to recognise participants real time response to market events. Questions whether effective scenarios could be developed and whether this option could lead reduce the incentive on participants to adopt their own risk management processes.	
Origin	Origin does not support the compelled provision of stress test reporting as envisaged by the AEMC to the relevant authorities. It is not clear what additional value conducting and reporting on an additional stress test could contribute to the efficiency of the market or be proportionate given the potential burden that further risk reporting could impose on businesses. The development of any stress test to be applied across the NEM is problematic given the differing nature of participants. It is not clear how the AEMC stress test would fit with the existing ASIC requirements and authority. Credit ratings agencies regularly report and grade business listed on the ASX. Given this, how could the results of a stress test be interpreted were a participant to fail a stress test but have a solid rating from credit agencies? This could potentially be a catalyst for uncertainty and have a destabilising effect on the market, contra to the goals of financial resilience and stability. Equally, it is not clear how participants would be obliged to respond if they failed a stress test.	
Potential options – code of best practice		
AFMA	AFMA notes industry led initiatives in developing and maintaining codes of best practice which have proved successful in the financial sector.	Our considerations regarding a code of best practice regarding risk

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
AGL	AGL does not support a code of best practice. It would be challenging trying to create an effective code. Moreover it could lead to perverse behaviour. Specifically, if the code is too prescriptive and heavily enforced, participants may be more focused on adhering to the code than actually trying to manage their own risks. If it is too broad, it may have limited value as a risk management tool. Given this, it may become a very costly and prolonged exercise which may not result in any material benefit.	management in the electricity sector are set out in section 10.3.1 of the report.
Alinta Energy	Entities already work to best practice standards and a code of practice would form an arbitrary tool which is likely to become out-dated or be set at such a level as to be meaningless. A code would not enhance existing arrangements.	
EnergyAustralia	EnergyAustralia does not support this option. The code would need to be so flexible that it would have limited utility and at best represent minimum standards. The existing licensing and regulatory framework already ensures licence holders establish and maintain appropriate risk management systems. EnergyAustralia risk management policies and systems are consistent with the international risk management standard (ISO 31000).	
ERM Power	ERM would support an industry-developed, voluntary code if this is a viable alternative to Option 1 ('no new measures'), but this would seem an unlikely political solution. This type of code would largely constitute a reinforcement of existing risk management practices and requirements, including accounting standards. If the code is to go much beyond further embedding existing requirements it will be challenging to negotiate into existence across the various interested parties.	
ESAA	This option seems to be premised on the assumption that internal risk management practices are currently insufficient, without providing any evidence to substantiate this view. While the idea of a code of practice sounds benign, how it is implemented can have a material adverse impact on businesses. If the code is prescriptive it will limit the options of businesses to deal with any risks they may face, ultimately making the situation worse. The ESAA notes that ASIC currently recommends businesses use the international standard AS/NZS ISO31000-2009 Risk Management, to identify, evaluate and manage risks. As such, there does not appear to be a need for a code of practice.	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
GDF Suez	Similar to the stress test, 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.	
GDF Suez	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.	
InterGen	InterGen considers that a regulated code would be too rigid to cater to the diversity of participants and could potentially impede innovation in risk management practices. InterGen believes that participants already employ sophisticated risk management practices.	
Origin	Origin recognises that best practice guidelines may have some value. However, it should be recognised that a code of best practice is unlikely to reduce the risk of contagion. It is critical that any guidelines developed retain flexibility given the many businesses operating in the NEM are diverse, unique and operate in a range of energy and other markets. In addition, it is not clear how a code of best practice could co-exist with or enhance existing internal or external requirements, such as those arising from a condition of holding an AFSL.	
Potential options - capital and margining requirements		
AFMA	AFMA notes that the analysis by Seed Advisory that the majority of the cost of OTC counterparty default lies in the non-defaulting party ability to recontract lost hedges. Hence introducing mandated credit support for all OTC derivatives or requiring margining has the potential to increase the capital required of industry participants without necessarily reducing the risks to those participants.	Our considerations regarding capital and margining requirements for OTC transactions in the electricity sector are set out in section 11.6 of the report.
AGL	AGL considers that imposing mandatory margin requirements may compromise the NEO, not	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
	contribute to it. Margining substantially increases the cost associated with hedging, which may put pressure on the price of electricity to increase. It will decrease the liquidity in the contract market. It will also stifle competition in the NEM by increasing barriers to entry. Moreover, it will exacerbate the risk of contagion in periods of high volatility by increasing the cash flow pressures on participants.	
EnergyAustralia	EnergyAustralia does not support imposing additional margining requirements. Margining reduces credit risk however it creates cash flow risk. Mandatory imposition of margining would unnecessarily limit the risk management options available to electricity market participants. Participants would need to hold more capital and/or reduce contract cover and accept more market risk. This would reduce competition, directly increase costs for consumers and increase volatility in the market.	
ERAA	The ERAA would also strongly oppose the introduction of additional margin requirements (Option 5). Any such mandated increases to capital requirements would be inefficient and poorly targeted.	
ERM Power	ERM considers this is the worst of the options. It has all the negative aspects of Option 2 (mandatory central clearing), including a basic inability to meet the objective of providing a full picture of NEM resilience, plus a mechanism that will go further to bring about financial fragility and systemic risk in the NEM than anything else. ERM does not support margin requirements for non-centrally cleared derivatives. At its best this will merely lead to a more expensive market, where prices are passed through to customers. At its worst it will play a role in RoLR events by amplifying financial pressure on businesses already experiencing stress.	
ESAA	Introducing mandated credit support for all OTC derivatives or requiring margining has the potential to increase the capital required of industry participants without necessarily reducing all the risks to those participants. Margining creates cash flow issues at the point businesses are under pressure and as the derivatives market is underpinned by the physical market can create perverse outcomes. From a contract market perspective a high wholesale spot price appears as a negative for generators if the strike price is low. In this situation a generator would be required to submit extra capital to margin off, but the generator would also be receiving the high wholesale spot price. This was the case during the drought.	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
GDF Suez	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.	
InterGen	InterGen believes that the imposition of additional margins defeats the purpose of why participants use OTC derivatives, which is to manage cash flow risk. Analysis by Seed Advisory highlighted that margining does not contain contagion as the greater risk lies in the non-defaulting party ability to recontract lost hedges.	
Origin	The AEMC has also not demonstrated how margin requirements for OTC derivatives could reduce the risk of contagion or systemic risk. Indeed, Origin supports the conclusion by Seed that margining may not be effective in reducing the risk of contagion and the margin may not be sufficient to remove the initial short-term funding requirement. Imposing a margin requirement on participants imposes a cost to acquiring the capital and a liquidity risk in ensuring the requisite margin requirements are maintained.	
Potential options – prudential regulation		
AGL	AGL considers there is no case to support additional supervisory and regulatory powers regarding financial market activity and contends that ASIC's existing powers under the AFSL are sufficient. Additional supervisory and regulatory powers would be disproportionate to the low risk of contagion.	Our considerations regarding prudential regulation in the electricity sector are set out in section 10.2 of the report.
Alinta Energy	This option would substantially increase participant costs, create barriers to entry and reduce innovation and competition to the significant detriment of electricity consumers. It would likely emphasise stability over competition and lead to inefficient levels of capital being held by a few large entities. It would be pushing the industry back towards a few large vertically integrated entities with little agility as opposed to one where product creativity should flourish and entry and exit in response to successful commercial decisions is the norm. The AEMC countenance of such an option, despite the absence of evidence of failure, is of concern and of questionable constructive value.	

STAKEHOLDER	ISSUES RAISED IN THE SUBMISSION	AEMC RESPONSE
EnergyAustralia	EnergyAustralia disagrees with implementation of prudential regulation for the electricity industry. This would substantially increase participant costs, create barriers to entry and reduce innovation and competition to the significant detriment of electricity consumers.	
ERM Power	ERM does not support this option. It notes the comments made about stress test reporting. regarding the additional element of supervision and regulatory power, ERM adds that expectations of a regulator to exercise these powers and make 'better' judgements than professional traders and risk managers are fundamentally unrealistic.	
ESAA	If it is accepted that OTC contracts are used as a risk management tool, and rarely used for speculation, this approach is essentially saying that businesses are not able to appropriately manage their risks and require assistance from government to make sure they run their businesses appropriately. While oversight and feedback is useful, businesses are best placed to manage their operations.	
GDF Suez	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 (higher capital requirements), this option will also result in decreased competition.	
InterGen	Not supported. This presupposes that a regulator is able to correctly intervene to prevent market contagion. It also introduces the potential for too big to fail intervention, thereby reducing the efficacy of the NEM and could lead to the ned for regulators to be intricately involved in the day to day running of at least the systemically important participants.	
Origin	Resourcing a regulator to monitor or having greater powers of intervention is likely to be significant. Given this, it is difficult to identify how the option could be a proportionate response or likely to promote transparency and efficiency in the market.	

D Case studies electricity business failures in Australia

Since the establishment of the NEM in 1998, there have been four cases of electricity market participants exiting the market due to financial distress. None of these cases caused significant market disruption. The four cases are:

- Enron - December 2001
- Energy One - June 2007
- Babcock and Brown - March 2009
- Jackgreen - December 2009.

Each of these cases was different in terms of underlying reasons for failure and the resolution arrangements that ultimately applied. None of these instances resulted in significant disruption to the broader operation of the NEM, or in significant financial impacts on other participants.

With both under 1% share of the NEM retail market, Jackgreen and Energy One were small companies compared to the size of the market as a whole. The ROLR arrangements that were in place at the time operated relatively adequately from a wholesale market perspective.[1] The impact on the ROLR(s) from taking on additional customers was not significant.

However, these events did highlight the possibility that if a major retailer were to fail, the ROLR arrangements could cause financial contagion due to the need by the ROLR(s) to post credit support to AEMO in respect of the new customers at short notice.

Overall, the case studies to date of business failures in the NEM may not provide strong indications as to the possibility of financial contagion and the risks to financial system stability in the NEM in the current market circumstances following a major failure. This is because of:

- the limited size of the businesses that have failed;
- the market conditions occurring at the time of default. With the exception of Energy One and Jackgreen, market conditions at the time of failure were 'normal' and hence did not contribute to distress of market participants; and
- the market structure today being quite different to when these events occurred.

Enron - December 2001

Enron Australia Finance Pty Ltd (Enron Australia) was a subsidiary of Enron Corporation, a company listed on the New York Stock Exchange. Enron Corporation filed in the United States for Chapter 11 bankruptcy and ceased trading on 2 December 2001.

Between its commencement of operations in Australia in December 1998 and its failure in December 2001, Enron Australia had traded, amongst other things, electricity

1 As discussed below, Jackgreen's failure in particular caused a spike in complaints from the retail side of the market to the NSW Electricity and Water Ombudsman.

derivatives or electricity swap contracts in relation to electricity to be supplied in the NEM. The company was one of the largest and most active traders in the electricity derivatives market in Australia. In the period between December 2000 and December 2001, it entered into electricity swap contracts comprising approximately 17 percent of the market.[2]

Although Enron Corporate was known globally as a major investor in energy assets, Enron Australia did not have physical electricity assets, nor was it an electricity retailer in Australia. It was a participant only in the financial markets.

The failure of Enron Australia did not cause significant wholesale market disruption. However, it did highlight some issues with the documentation-practices used in the forward trading of electricity.

These issues were explored in three legal cases - Enron v Integral (2002), Enron v TXU Electricity Ltd (2003) and Enron v Yallourn Energy (2005).[3]

Enron's failure occurred at a very early stage in the NEM, and in particular at a time when liquidity in the forward markets was limited. Although at the time Enron was a substantial player by market share, its failure did not threaten NEM financial system stability.

Energy One - June 2007

Energy One commenced operation in 1996 as Ferrier Hodgson Electricity Pty Ltd (FHE), and was one of the first independent retailers to enter the electricity retailing industry following the introduction of the NEM. FHE was granted an electricity retailers licence in NSW in 1997. The company changed its name to Energy One in 2005, and became listed on the ASX in 2007.

According to their prospectus, at that time Energy One had approximately 8,500 customers, primarily in New South Wales and Queensland, representing approximately 245,000 MWh of load (on a rolling 12 month aggregated basis).[4]

Following a series of high price events in the NEM during 2007, Energy One requested NEMMCO, AEMO's predecessor, to suspend the company from the NEM on 22 June 2007.[5] The immediate effect of the suspension was that Energy One’s customers were transferred to other retailers.

This occurred via a ROLR event being called in New South Wales, the Australian Capital Territory, Victoria and Queensland.

At the time of triggering the ROLR scheme, in June 2007, Energy One's share of overall customer energy consumption in the NEM was around 0.1% to 0.15%, and similar in terms of number of customers.

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2 NSW Supreme Court, Enron Australia Finance pty ltd (in liquidation) v Integral Energy Australia, September 2002.

3 NSW Supreme Court, Enron Australia Finance pty ltd (in liquidation) v Integral Energy Australia, September 2002; Enron Australia v TXU Electricity, December 2003; and Enron Australia Finance v Yallourn Energy, February 2005.

4 Energy One Prospectus, 2006. Retrieved via: http://www.asx.com.au/asxpdf/20061211/pdf/3101x814cdyrn0.pdf

5 Energy One, ASX Announcement, 22 June 2007.

Given the small size of the business, the exit of Energy One did not present particular issues to either the financial market or physical market for electricity.

Babcock and Brown - March 2009

Babcock and Brown was involved in a number of different businesses, from property and aircraft leasing to a structured finance advisory business and energy investments.

In Australia, it had energy investments across the supply chain, from energy retailing, gas distribution and network pipelines, gas contracts with Carnarvon basin producers in the north-west shelf of WA, and electricity generation assets in coal, gas and wind across Australia. Babcock and Brown owned 982MW of generation in the NEM and had over 300,000 supply customers. These assets were mostly held in fund structures, where Babcock and Brown had both an investment and management rights. Thus Babcock and Brown was a participant in both the physical and financial markets, owning significant generation in the NEM.

However, the failure of the parent company, and resulting restructuring, had little effect on the operations of the physical assets, which were mostly owned by Babcock and Brown administered funds.

The energy assets were spun off quickly when the parent company failed, with no effect on the market at large.

Jackgreen - December 2009

Jackgreen Energy was a 'specialist' renewable energy retailer. It commenced operation in January 2004 and went into voluntary administration on 18 December 2009. At that time, it had around 100 employees and 75,000 retail customers, which represented less than 1% market share.

The company was suspended from the NEM effective from midnight on 18 December 2009. This triggered a ROLR event in Victoria, New South Wales and Queensland. Its retail licence, however, was not immediately revoked.[6]

The ROLR provisions were activated in all the jurisdictions and Jackgreen's customers were passed to different retailers across the NEM. The Energy and Water Ombudsman of New South Wales prepared a report on the failure of Jack Green in 2010.[7]

The Ombudsman stated:[8]

> "The transfer of Jackgreen customers to the NSW Retailers of Last Resort – EnergyAustralia, Integral Energy, Country Energy – appeared to go very smoothly. Information was provided for Jackgreen customers by the ROLRs, as well as Industry & Investment NSW, EWON and by Jackgreen."

The Ombudsman did however note a number of technical problems, including issues related to back-dated billing and the treatment of customers who were in credit at the time of the failure.

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6 Clare Petre: *Jackgreen - the failure of an energy retailer. The perspective of the Energy and Water Ombudsman NSW in dealing with Jackgreen customer complaints*, 2010. Retrieved via: URLhttp://www.ewon.com.au/ewon/assets/File/Reports/EWON_Jackgreen_Report_Sept10.pdf

7 Ibid

8 Ibid

E Modelling assumptions potential effects of a large retailer failure

In order to better understand the materiality of the implications of the failure of a large retailer, we conducted some modelling of the potential financial impacts on market participants. We appreciate AEMO and Frontier Economics assistance in this modelling exercise. The results of this modelling is presented in section 3.4 and are also included in the Frontier economics report published with this second interim report.[9]

We estimated both the credit support implications and the wholesale energy purchase costs on ROLR(s) under a number of scenarios reflecting different market shares of both the failing retailer and the designated ROLRs. We estimated these implications during both normal and high price conditions, with the high price conditions based on market outcomes during the 2007 drought.

The three scenarios modelled were:

- Scenario 1: Failure of a retailer with a market share of consumption across the NEM and in each region of 20% and the equal allocation of that retailer's customers to two other retailers also with market shares of 20% each (ie all three retailers are originally the same size). All other retailers are assumed to be smaller. This would represent a notional increase in the size of the two designated ROLRs' customer loads of approximately 50%;
- Scenario 2: Failure of a retailer with a market share of consumption across the NEM and in each region of 30% and the equal allocation of that retailer's customers to two other retailers with market shares of 15% each. All other retailers are assumed to be smaller. This would represent a notional doubling in the size of designated ROLRs' customer loads; and
- Scenario 3: Failure of a retailer with a market share of consumption across the NEM and in each region of 30% and the entire allocation of that retailer's customers to one other retailer with a market share of 15%. All other retailers are assumed to be smaller. This would represent a notional tripling in the size of the designated ROLR's customer load.

Under all scenarios, we assumed that Standard & Poor's credit rating of the two designated ROLRs is BBB-, this being the threshold for investment grade debt. By way of example, the present Standard & Poor's credit ratings of the three largest retailers in the NEM are BBB for AGL and Origin Energy (the latter has been given a negative outlook) and BBB- for EnergyAustralia (also with a negative outlook).

9 Frontier Economics, Policy responses to mitigate the risk of financial contagion in the NEM, July 2014.

E.1 Modelling assumptions

E.1.1 Scenario Parameters

Scenarios assume retail load only, excluding any offset from generation or reallocations. This could exaggerate the estimated numbers given that participants tend to use a mix of generation and reallocations to offset their market risk exposure.

E.1.2 Market Parameters

The assumptions for normal and high price conditions are:

- Normal parameters are based on current values (2014 Winter), except with $20 subtracted to exclude carbon tax. The average weekly price assumed under normal conditions is $35 per MWh.
- High parameters are based on June 2007 period. The weekly average weekly price assumed under high price conditions is $60 per MWh.
- Total daily energy s assumed to be 500,000 MWh under both normal and high price conditions.

E.1.3 Collateral requirements for credit support obligations

AEMO prudential requirements

A ROLR maximum credit limit (MCL) has been calculated using the current prudential standard, based on Low and High price market parameters. Following a ROLR event, AEMO would increase the MCL for ROLRs based on the increased load. The current arrangement would see a step change as credit support will be required within 1-2 days and the MCL must be met by credit support.

We have not calculated any additional collateral requirements which may be required if the ROLR exceeds its trading limit during periods of extreme high prices.

DNSP credit support requirements

DNSP credit support has been modelled based upon the provisions set out in chapter 6B of the National Electricity Rules.

An individual unsecured credit limit is computed for each retailer for each DNSP as a function of the retailer’s credit rating. Each retailer is assigned a credit allowance percentage that is multiplied by the maximum unsecured credit allowance. In general the credit allowance percentage for a retailer can be computed as the ratio between probability of default for A- rated company and the probability of default for the retailer based upon its own assigned rating. A BBB- rated retailer would receive 22% of the DNSP's maximum credit allowance. A retailer individual unsecured credit limit is equal to credit allowance percentage multiplied by 25% of the estimated payment to the DNSP during the payment cycle. We have assumed that retailers pay DNSPs on average about 3 months in arrears.

Credit outstanding is defined in terms of the retailer’s market share, total revenue for the relevant distributor and the number of days, on average, between the provision of

the network service and payment by the retailer. If a retailer's credit outstanding exceeds its individual unsecured credit limit, the retailer would have to provide credit support for the difference.

As a retailer's individual unsecured credit limit is fixed irrespective of the retailer's number of customers, the implication of this formula is that the quantum of a retailer's DNSP credit support obligation is disproportionately positively related to its market share. Accordingly, a sudden large increase in a ROLR's market share resulting from the failure of a large retailer will tend to disproportionately increase its DNSP credit support obligations.

The requirement for ROLRs to post additional credit support to DNSPs must be met within 10 business days of the request.

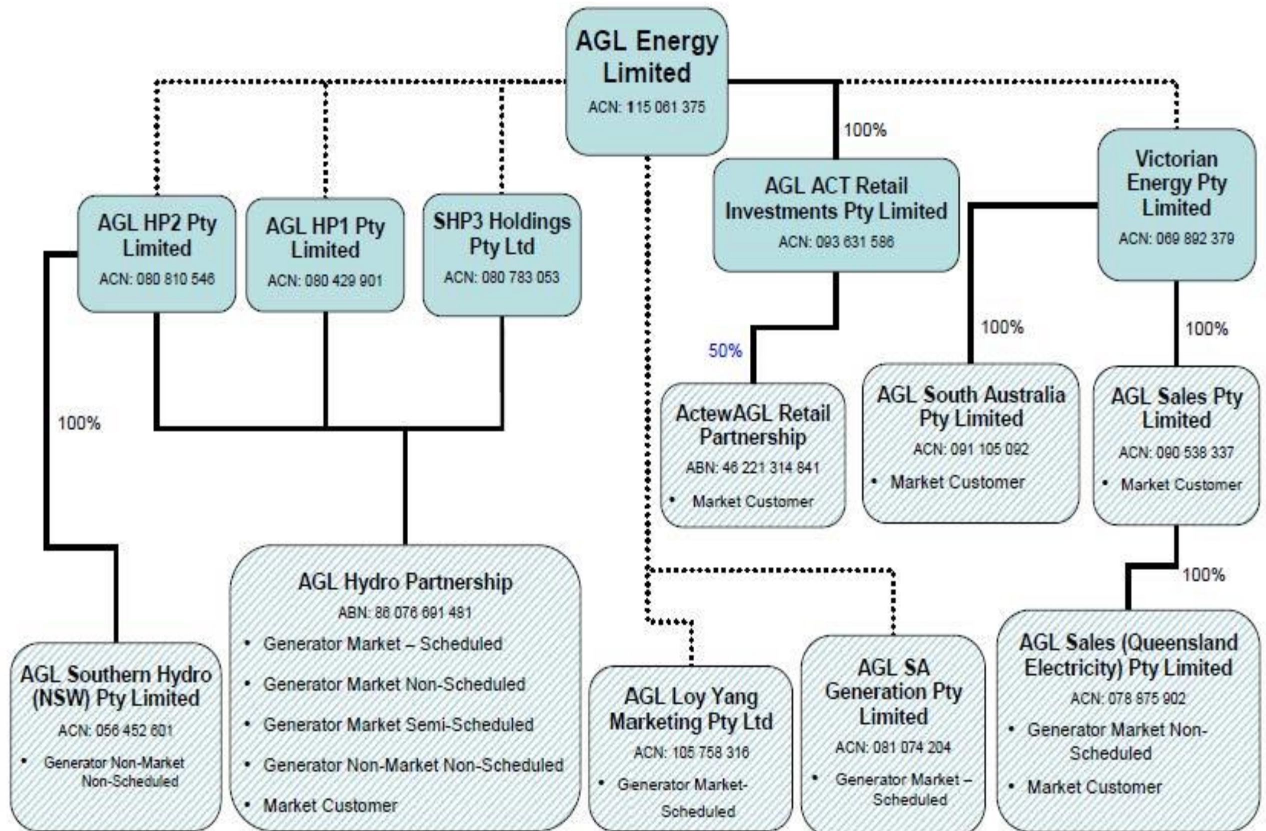
Further details on the modelling of DNSP credit support is set out in chapter 6 of Frontier economics report.

F Corporate structure diagrams of three largest combined generation/retail businesses

The diagrams below illustrate the corporate diagrams of the three largest, vertically integrated electricity businesses in the NEM.

AGL

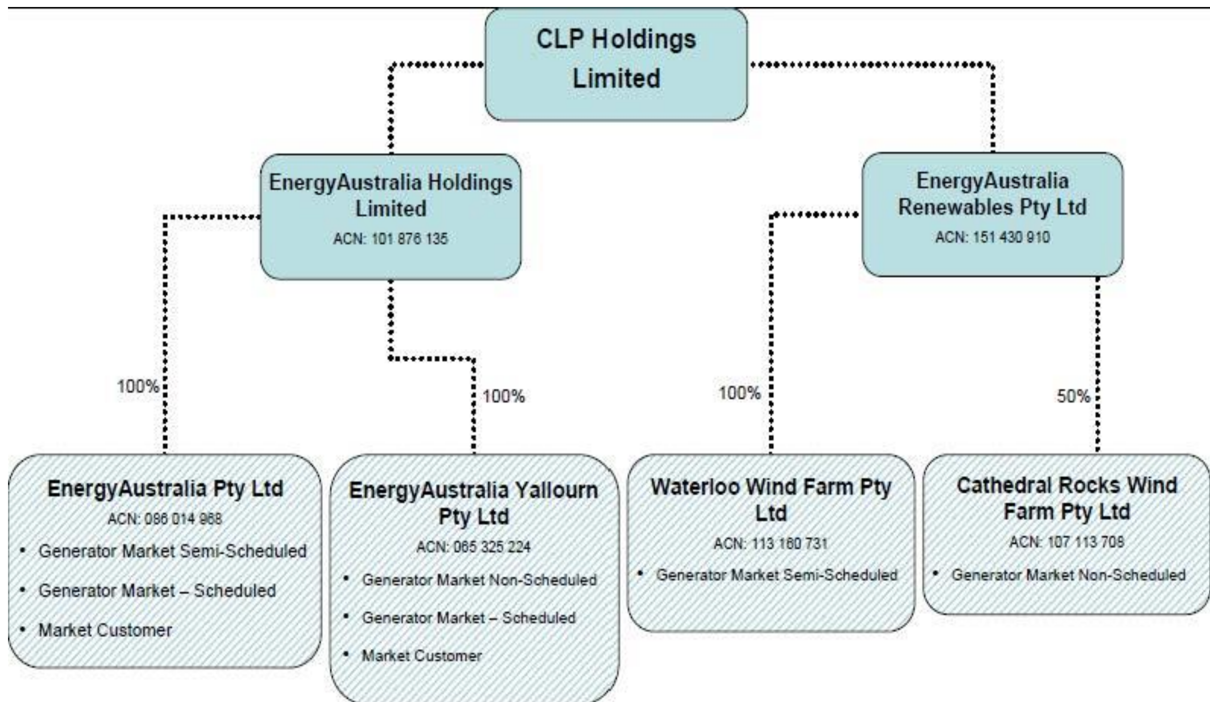
Figure F.1 Corporate diagram AGL



Allens, *Dealing with financial distress in the national electricity market, special administration regime for electricity retailers*, 10 May 2013, Schedule 2. Does not include Macquarie Generation.

EnergyAustralia

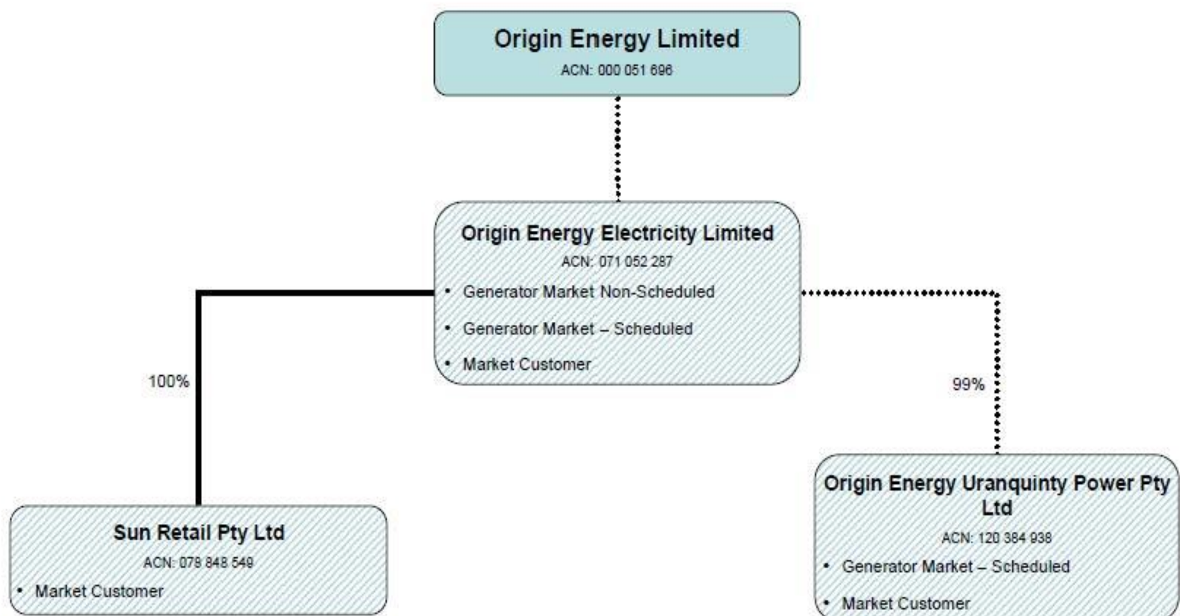
Figure F.2 Corporate diagram EnergyAustralia



Allens, *Dealing with financial distress in the national electricity market, special administration regime for electricity retailers*, 10 May 2013, Schedule 2.

Origin

Figure F.3 Corporate diagram Origin



Allens, *Dealing with financial distress in the national electricity market, special administration regime for electricity retailers*, 10 May 2013, Schedule 2.

G Arrangements that restrict or cease the market operation of a participant

Default and suspension

If a participant cannot meet its financial obligations in the spot market, this could lead to a 'default event' in relation to that market participant under the NER. The NER include the following default events:[10]

- the market participant does not pay money due for payment to AEMO under the Rules by the appointed time on the due date;
- AEMO does not receive payment in full of any amount claimed by AEMO under any credit support in respect of a market participant, within 90 minutes after the due time for payment of that claim;
- the market participant fails to provide credit support required to be supplied under the Rules by the appointed time on the due date;
- it is unlawful for the market participant to comply with any of its obligations under the Rules or any other obligation owed to AEMO or it is claimed to be so by the market participant;
- it is unlawful for any credit support provider in relation to the market participant to comply with any of its obligations under the Rules or any other obligation owed to AEMO or it is claimed to be so by that credit support provider;
- an authorisation from a government body necessary to enable the market participant or a credit support provider which has provided credit support for that market participant to carry on their respective principal business or activities ceases to be in full force and effect;
- the market participant or a credit support provider which has provided credit support for that market participant ceases or threatens to cease to carry on its business or a substantial part of its business;
- the market participant or a credit support provider which has provided credit support for that market participant enters into or takes any action to enter into an arrangement (including a scheme of arrangement), composition or compromise with, or assignment for the benefit of, all or any class of their respective creditors or members or a moratorium involving any of them;
- the market participant or a credit support provider which has provided credit support for that market participant states that it is unable to pay from its own money its debts when they fall due for payment;
- a receiver or receiver and manager is appointed in respect of any property of the market participant or a credit support provider which has provided credit support for that market participant;

10 NER, clause 3.15.21 (a).

- an administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function is appointed in respect of the market participant or a provider of credit support for the market participant;
- an order is made, or a resolution is passed, for the winding up of the market participant or a provider of credit support for the market participant;
- A notice under section 601AB(3) of the Corporations Act is given to the market participant or a credit support provider which has provided credit support for that market participant unless the registration of that market participant or credit support provider is reinstated under section 601AH of the Corporations Act;
- the market participant or a credit support provider which has provided credit support for that market participant dies or is dissolved unless such notice of dissolution is discharged; and
- the market participant or a credit support provider which has provided credit support for that market participant is taken to be insolvent or unable to pay its debts under any applicable legislation.

Where a default event has occurred in respect of a participant, AEMO may issue a default notice to the participant, specifying the alleged default and requiring its remedy by 1pm the next day following the date of issue of the notice.[11] AEMO may also make claim upon any credit support held in respect of the obligations of the market participant for the amount of money the participants owes AEMO.[12] A default notice is not made public. The market participant can continue to operate in the market while it seeks to remedy the default.

If the default event is not remedied by the required time, or any later deadline agreed to in writing by AEMO, or if AEMO receives notice from the defaulting market participant that it is not likely to remedy the default, then AEMO may issue a suspension notice, under which AEMO notifies the defaulting market participant of the date and time from which it is suspended from trading.[13] The suspension notice must also specify 'the extent of the suspension'.

This provides AEMO with some discretion to, for example, only suspend parts of a defaulting company from the market while allowing others to continue to trade (ie, 'partial suspension').

If a participant has been suspended from trading in the market, effectively this means the market participant can, for the duration of its suspension, no longer participate in the market to the extent specified in the suspension notice. A suspension may be followed by the market participant's de-registration with AEMO.[14]

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11 NER clause 3.15.21(b)(1).

12 NER, clause 3.15.21(b)(2).

13 NER, clause 3.15.21 (c).

14 In order to participate in the NEM, a person must register with AEMO in one or more of the categories of 'participants', ie generator, retailer, trader or otherwise. To be eligible to be registered as any category of Market Participant, a person must meet the eligibility criteria set out in clause 2.4.2. of the NER. This includes a criterion that the person must satisfy AEMO that it is and will be able to satisfy the prudential requirements applicable to the category of participant in which it

At the time of issue of a suspension notice, or as immediately thereafter as is practicable, AEMO must forward a copy of the suspension notice to the AER and all local retailers of the suspended market participant's customers.[15] AEMO must also issue a public announcement that the market participant has been suspended from the market within the same timeframe.[16]

Revoking a retailer authorisation or licence

Financial distress may also mean a retailer can no longer meet its obligations under its retailer authorisation.

In order to be active in the NEM as a retailer, a participant must hold a retailer authorisation.[17] For the jurisdictions which have adopted the National Energy Customer Framework (NECF), this authorisation is granted by the AER. The jurisdictions that have currently adopted the NECF are: New South Wales, South Australia, Tasmania and the ACT.

An applicant retailer must demonstrate to the AER that it meets the entry criteria to be authorised. These criteria include a financial resources criterion which requires that the applicant retailer must have resources or access to resources so that it will have the financial viability and financial capacity to meet the obligations of a retailer.[18] The AER has published guidance on how it will assess a participant's compliance with this criterion.[19]

In the event a retailer fails to meet its obligations under the energy laws, the AER may revoke that retailer's authorisation.[20] The NERL contains a procedure for revoking a retailer authorisation and refers to guidelines to be established by the AER on this matter (the AER Retailer Authorisation Guidelines).[21]

In Victoria, which has not adopted the NECF, this decision is made by the Essential Services Commission.[22] The Electricity Industry Act 2000 for Victoria states that a

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wishes to participate in the market. AEMO has no power to de-register a participant. De-registration following a suspension therefore must be initiated by the participant itself.

15 The NER state that AEMO must forward a copy of the suspension notice to "each Market Participant which is financially responsible for a transmission network connection point to which is allocated a connection point for which the defaulting Market Participant is financially responsible". See NER, clause 3.15.21(d).

16 NER, clause 3.15.21 (d) and (f).

17 NERL, section 88.

18 NERL, section 90.

19 AER, *Retailer authorisation guideline*, July 2011, section 2.2.

20 NERL, section 107.

21 NERL, sections 120 and section 117. In these guidelines, the AER states that it will consider a number of factors in deciding whether to revoke a retailer authorisation following a breach of a retailer obligation, including the impact of the breach and the compliance history of the participant. AER, *Retailer authorisation guideline*, July 2011, section 3.1.

22 The NECF framework also currently does not apply in Queensland. Queensland is, however, in the process of adopting the NECF framework so will not be separately considered.

precondition for an applicant receiving a licence is that it is financially viable.[23] Failing to meet this criterion could be a ground for revoking the licence.[24]

Revoking an Australian financial services licence

Businesses, including electricity businesses, that trade in financial derivative contracts such as OTCs must hold an Australian financial services licence (AFSL).[25] An AFSL is granted by ASIC. In order to be granted a licence, the applicant must meet the general obligations set out in the Corporations Act.[26] These include a requirement on the licence holder to meet the applicable licence conditions. As explained in chapter 3 and previous documents, these licence conditions require electricity businesses as licence holder to have appropriate risk management practices and financial reserves in place.[27]

After an AFSL has been granted, ASIC may also impose additional conditions or revoke conditions imposed on the licence.[28] ASIC will assess the need for this consistent with its function of protecting financial market integrity.

If the licence holder has not complied with the general obligations, ASIC may require an AFSL holder to remedy the non-compliance. ASIC may also suspend or cancel an AFSL in such a situation.[29] If the licence holder becomes insolvent under administration, this may be reason for ASIC to immediately suspend or cancel its licence.[30]

Issuing a ROLR notice

The NERL lists a number of 'ROLR events' in relation to a retailer.[31] In the case of electricity, these include:

- the revocation of the retailer's authorisation;
- the right of the retailer to acquire electricity from the wholesale exchange is suspended (ie, AEMO has suspended the retailer from operating in the market);
- the retailer ceases to be a Registered participant in relation to the purchase of electricity directly through the wholesale exchange, as required by section 11(4) of the NEL;
- an insolvency official is appointed in respect of the retailer or any property of the retailer;

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23 Victoria Electricity Industry Act 2000, section 19(2).

24 Section 29(3) of the Electricity Industry Act 2000 states that licence may be revoked in accordance with the licence conditions. Licences generally appear to contain a provision that states that the licence can be revoked if the licensee's financial viability is such that the Commission considers that the licensee would be unable to satisfactorily meet its obligations under the licence. See examples via: http://www.esc.vic.gov.au/Energy/Licensing.

25 Corporations Act 2001, section 911A.

26 Corporations Act 2001, section 915A.

27 See AEMC, *Stage two options paper*, published 8 November 2013, section 3.3.2.

28 Corporations Act 2001, section 914A.

29 Corporations Act 2001, section 915C.

30 Corporations Act 2001, section 915B.

31 NERL, section 122.

- an order is made for the winding up of the retailer or a resolution is passed for the winding up of the retailer;
- the cessation of the sale of energy by the retailer to customers, otherwise than by:
  - transfer of its retailer authorisation;
  - surrender of its retailer authorisation;
  - transfer of all or some of its customers to another retailer; or
  - selling or otherwise disposing in whole or in part its business of the sale of energy (being the activity to which the retailer's authorisation relates) to another retailer.

When a ROLR event occurs, the AER may decide to issue a ROLR notice for those jurisdictions that have adopted the NECF.[32]

The ROLR notice activates further actions under the ROLR scheme. In the ROLR notice, the AER must state the date on which the customers of the failed retailer are to be transferred to the relevant designated ROLRs.

In addition to the NERL provisions on ROLR, further guidance is provided in the ROLR Statement of Approach, ROLR Plan and ROLR Guidelines, published by the AER.[33] In particular, the ROLR Plan contains procedures to be followed by the participants in the plan, which include the AER, AEMO, registered ROLRs and distribution companies, in the event of a ROLR event. These procedures are tested annually between participants in 'ROLR exercises', simulating ROLR events.[34] The documents also contain the information flows that would apply between relevant parties in a ROLR event.

In Victoria, the Essential Services Commission may trigger a supplier of last resort-event if:

- a defaulting retailer's licence is revoked; or
- the right of the defaulting licensee to acquire electricity from the wholesale electricity market is suspended or terminated (ie, this follows from a suspension by AEMO).[35]

This activates further steps under the supplier of last resort provisions. Among other things, the Essential Services Commission published a Retailer of Last Resort Manual, which includes detailed procedures about the interaction between the Essential Services Commission and AEMO in the event of a ROLR event triggered by an AEMO suspension.[36]

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32 NERL, section 136(1).

33 These documents can be accessed via the AER's website, via: http://www.aer.gov.au/node/1189.

34 See for example AER, *RoLR public exercise conduct report*, 21 October 2013, available on the AER website via: http://www.aer.gov.au/node/22706.

35 Electricity Industry Act 2000, section 49D(5).

36 Essential Services Commission, Retailer of Last Resort Manual - Electricity or Gas RoLR event triggered by the Australian Energy Market Operator, August 2011.

Security of supply issues

A financial crisis in the NEM may also coincide with physical supply problems. If, for example, the failing participant owns generation assets, its financial distress may cause security of supply concerns if it cannot generate. In such a situation, the following decisions may also need to be considered:

- AEMO could decide to issue a direction on the generator to maintain or increase its power output;[37] and
- Under certain circumstances, state jurisdictions could apply 'emergency powers' to ensure supply of electricity, which could be called upon if other alternatives have failed. AEMO and the jurisdictions have laid down principles for coordination in these situations.[38]

The failure of a generation business may also trigger issues relating to the revocation of generation licences. Such licences are currently granted by state bodies.

Suspension of the spot market

In extreme circumstances, AEMO may decide to suspend the spot market in a NEM region.[39] AEMO may decide to do this when:

- the power system has collapsed to a black system;[40]
- AEMO has been directed by a participating jurisdiction to suspend the market or operate all or part of the power system in a manner contrary to the provisions of the Rules following the formal declaration by that participating jurisdiction of a state of emergency under its emergency services or equivalent legislation; or
- AEMO determines that it is necessary to suspend the spot market in a region because it has become impossible to operate the spot market in accordance with the provisions of the Rules.

If the spot market is suspended, AEMO must notify all registered participants without delay.[41] The Rules contain provisions on pricing during the period of suspension. During the suspension, AEMO may issue directions in order to maintain security of supply.[42]

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37 Section 116 of the NEL and clause 4.8.9 of the NER provide AEMO with the power to 'do any act or thing' necessary to maintain or restore power system security and/or reliability. This may include requiring a registered participant to increase its power output.

38 *NEM Memorandum of Understanding on the Use of Emergency Powers* and *NEM Emergency Protocol*, 24 November 1998.

39 NER, 3.14.3.

40 This is the case when the power system, or parts thereof, needs to be shutdown, causing disruptions of supplies to major parts of the network.

41 NER, 3.14.4(a).

42 NER, 3.14.4(e).

H Draft scope of further work on stability arrangements

In its review of financial market resilience in the National Electricity Market (NEM), the Australian Energy Market Commission (the Commission) recommended that the COAG Energy Council commission energy departments, in consultation with Commonwealth and State and Territory Treasuries, to form a working group to develop the detailed design of stability arrangements for the NEM, involving a form of special external administration.

H.1 Context

The Commission undertook a review of financial market resilience in the National Electricity Market (NEM), following a request from the COAG Energy Council (formerly called the Standing Council on Energy and Resources) to provide advice on:

- the risks to financial stability in the NEM from interdependencies between market participants, and the impacts of those risks if they materialise;
- existing mechanisms to manage those risks, and whether they are adequate; and
- if inadequate, how to strengthen, enhance or supplement those mechanisms.[43]

The Commission noted that the NEM has operated effectively to date, with businesses entering and exiting the market without causing financial instability in the NEM. NEM financial markets are generally robust and have been able to evolve to accommodate major events and changes in market circumstances. However, the Review concluded that the current arrangements that apply when a participant in the NEM fails - which include the ROLR and insolvency arrangements - are not adequate to respond to the failure of a systemically important market participant (SIMP)[44]:

- The retailer of last resort (ROLR) scheme is likely to be effective where a small- or medium-sized retailer fails. However, if a SIMP failed the ROLR could exacerbate the risk of financial contagion, due to the significant financial demands that would be placed on the ROLR in a short timeframe, if a large number of customers were transferred;
- General insolvency processes applying under Australian law cannot be relied upon to ensure an outcome consistent with policy objectives to provide continuity of supply to customers, and the maintenance of financial stability in the NEM. They could lead to disruption in both the generation and retail services provided by the SIMP, as well as the transmission of financial distress to other market participants if the SIMP defaults on wholesale market obligations.

As a result current arrangements may not manage, and could exacerbate, the significant flow-on effects to other market participants that are likely to occur when a SIMP fails, and which could be detrimental to customers. In addition to the risk of financial

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43 see http://www.aemc.gov.au/getattachment/98cd11aa-9e8c-486a-a3ee-a26487b59678/SCER-request-for-advice.aspx

44 define SIMP

contagion, there are other policy concerns including the impact on investor confidence, and the impact on competition in the NEM.

The Commission concluded that there is merit in developing alternative arrangements - which were termed stability arrangements - which may apply when a SIMP fails. These arrangements would form part of a 'toolkit' available for responding to the failure of a SIMP, and would involve a form of special external administration.

H.2 Scope of further work

The purpose of this work is to design and implement stability arrangements in the NEM - incorporating a form of special external administration - to manage the failure of a SIMP, where the application of normal insolvency processes together with the ROLR scheme could lead to cascading retailer default and financial instability in the NEM. In undertaking this work, the following issues should be considered:

- the objectives of the stability arrangements, consistent with the objectives and principles for the framework for responding to the failure of a SIMP identified in the Commission's review;
- which businesses and activities should be included in the arrangements;
- identifying the changes required to the legal framework and market arrangements, to support the stability arrangements;
- appropriate funding arrangements; and
- identifying how the stability arrangements are triggered, and when they come to an end.

H.2.1 Consultation and expert advice

In developing the stability arrangements the working group should:

- consult with COAG Energy Council officials and keep the COAG Energy Council informed of progress;

  consult with stakeholders including market participants and relevant government and regulatory bodies including the AEMC, the AER, AEMO, and ASIC; and
- seek input from expert advisers where appropriate.

H.2.2 Relevant considerations

In designing the stability arrangements regard should be given to:

- the analysis undertaken by the Commission in its Review of financial market resilience in the NEM; and
- relevant developments in electricity markets in other jurisdictions;
- approaches to financial stability regulation in other markets; and
- relevant developments in the regulation of financial markets in Australia and other jurisdictions.

H.2.3 Output

The output of this work is expected to include:

- reports outlining the detailed design of stability arrangements for the NEM, incorporating a form of special external administration, and the basis for that design; and
- draft changes to legislation and NEM rules to give effect to the stability arrangements.