REVIEW

Australian Energy Market Commission

FINAL REPORT

NEM financial market resilience

6 March 2015

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About the AEMC

The Council of Australian Governments, through its Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005. The AEMC has two principal functions. We make and amend the national electricity and gas rules, and we conduct independent reviews of the energy markets for the MCE.

Executive summary

The National Electricity Objective refers to electricity services for the long term interests of consumers with respect to:

- the price, quality, safety, reliability, and security of supply of electricity; and
- the reliability, safety, and security of the national electricity system.

With respect to the physical power system this means it must be maintained in a stable state, sometimes referred to as a secure operating state.

The financial equivalent of a stable physical power system is that there is the smooth flow of funds between market participants to support the buying and selling of electricity in the National Electricity Market (NEM).

There are arrangements to manage the flow of electricity and physical stability of the electricity system in the event of disruptions.[1]The arrangements in place to respond and manage disruptions or shocks to the financial stability of the NEM have been the subject of this Review.

The Council of Australian Governments' (COAG) Energy Council has requested advice from the Australian Energy Market Commission (AEMC or Commission) on risks to the NEM's financial stability, and whether any additional measures are required to manage those risks.

The Commission has concluded that the failure of a large NEM market participant with a significant retail customer base could threaten the financial stability of the NEM and result in disruptions to consumers. Without adequate arrangements and preparations in place such a failure could result in the spread of financial distress to other participants in the NEM, resulting in their failure.

This phenomenon, familiar to regulators and market participants in the financial sector, is referred to as financial contagion.

In response, the Commission recommends the COAG Energy Council implements new measures to improve the market's resilience in the event of the failure of a *large* market participant, including:

- managing the response to such a failure from a single decision making point, with decisions made by the Chair of the COAG Energy Council, in close cooperation with State and Territory energy ministers; and
- that decision making be supported by a formal structure for the provision of expert and co-ordinated advice by relevant market regulatory bodies.

1 For instance, this includes power system operating procedures, the ability of the Australian Energy Market Operator to direct generators to maintain or increase power output, and emergency powers that can be applied by state jurisdictions to ensure the supply of electricity.

It is also recommended that the COAG Energy Council develop changes to existing arrangements in the National Energy Retail Law (NERL) and the National Electricity Rules (NER) to:

- enable the retailer of last resort (ROLR) scheme to be effective in a broader range of circumstances when a retailer is suspended from the NEM; and
- clarify the framework in which the Australian Energy Market Operator (AEMO) may not suspend a participant.

In addition, the Commission recommends further work be undertaken to develop alternative arrangements to the ROLR scheme that could apply in the event of a *large* participant failure. This would involve a form of special administration or management. As the development of these alternative arrangements would involve legislative and regulatory changes and stakeholders beyond the electricity sector, it is recommended that these arrangements be developed by jurisdictional energy departments in consultation with Commonwealth, State and Territory Treasuries.

Context for advice and the Commission's approach

The NEM has operated effectively, with businesses entering and exiting the market without disrupting the financial stability of the NEM. NEM financial markets are generally robust and have been able to evolve to accommodate major events and changes in market circumstances.

However, events over the past years, such as the global financial crisis, have caused policy makers and regulators to reconsider their approaches to financial system stability and risk management. While recognising the strong track record of the NEM to date, the environment in which the NEM operates has evolved significantly since market start, including the industry structure, the range of financial instruments available, and regulatory obligations that apply. The range of challenges that the NEM has faced, and may face over the coming years, increases the importance of:

- understanding potential threats to the financial stability of the NEM; and
- being prepared to manage and respond to risks to the financial stability of the NEM if they occur.

The Commission's recommendations seek to:

- maintain commercial incentives on participants to manage their own risks to the extent that they can. The aim is not to prevent an individual participant from failing or leaving the market; rather the focus is on minimising disruptions to consumers and maintaining the financial stability of the NEM and public confidence, where failures occur.[2]

2 Minimising disruptions to consumers relates to the orderly transfer of customers from the failed retailer to the ROLR and maintaining supply to consumers under reasonable terms and conditions

- minimise the need for and expectation of government financial support when there are risks to the financial stability of the NEM. Market arrangements should not foster any perceived expectation that governments would support participants when risks to the financial stability of the NEM occur. This principle was also recently highlighted by the COAG Energy Council which noted that it did not support providing assistance for generators to exit the NEM.[3]

- facilitate a timely, proportionate and suitable response when a risk to the financial stability of the NEM arises. This involves having options available to respond in a timely manner depending on the circumstances of the situation.

The Commission's recommendations focus on having in place adequate mechanisms to respond and manage the failure of a large participant, consistent with work being done in financial markets as part of the recently completed inquiry into the Australian financial system.[4] As well as the financial sector, the Commission has also had regard to the experiences in other sectors and countries in developing its recommendations.

The need for preparation and planning

Having in place appropriate and planned responses to the failure of market participants, particularly participants with a significant retail customer base, would:

- help to minimise the likelihood and costs of government intervention;
- limit the impacts on consumers and help to maintain the stability of the market;
- reduce uncertainty about how government and regulatory bodies would respond and how risks that arise would be shared by various stakeholders;
- increase the likelihood of an orderly resolution; and
- provide greater confidence in the resilience of the NEM.

In the absence of preparation and planning on how to manage and respond to the failure of market participants, the stability of the NEM could be threatened and the expectation for government to directly intervene could increase. Experiences from other sectors of the economy, ranging from insurance to childcare, suggests that the absence of a planned response to the failure of a large market participant can result in major disruptions to the community, and a less than effective response.

Responding to the failure of a large retail business would require the consideration of many issues within a short time. These include financial stability considerations, broader consumer and investor confidence in the sector, competition and industry structure impacts, ongoing market stability, and impacts on the broader economy.

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in the event of a retailer failure. For instance, this would be occur where the financial obligations inherited by the ROLR can be adequately managed without causing the risk of further retailer failures or threats to the financial stability of the NEM.

3 COAG Energy Council. Meeting Communique, 11 December 2014, p1.

4 The Financial System Inquiry 2014 (Murray), *Final Report*, 7 December 2014, p. 35.

In recommending measures for responding to the financial failure of a large market participant, the Commission is not expressing a view as to the likelihood of this occurring. Rather, it is the consequences for consumers and the financial stability of the NEM in the event that it does happen, and the awareness that it could happen, that suggests that the prudent course of action is to be better prepared.

Financial market resilience and other work being undertaken by the Commission

This financial market resilience advice can be seen as part of a broader package of work that the Commission is undertaking to develop the energy market. Other such projects include recent changes to the NER relating to distribution network pricing arrangements, the competition in metering and related services rule change request, and the assessment of the optional firm access model for transmission frameworks.[5]

Over- the-counter hedge contract counterparty default

The Commission has examined the financial linkages between market participants in the NEM. The three *main* channels are:

- in the spot market;
- through ASX 24, which is a centralised exchange that offers standardised electricity derivative products; and
- through bilateral over-the-counter hedge contracts (OTC contracts) between participants and sometimes intermediaries.

For the spot market and exchange traded derivatives, there are arrangements in place to manage settlement shortfall and counterparty default by:

- diversifying the risk of participant failure across a large number of businesses. In the spot market, all generators are exposed to any shortfall in settlement payments; and
- requiring participants to pay daily variation margins for exchange traded derivatives, which act to protect against the impacts of a participant failing.

Where a retailer has a high concentration of OTC contracts with a large generator and that generator defaults, this could result in the retailer being exposed to spot prices for a substantial part of its retail load.

5 See: AEMC, Distribution network pricing arrangements, Rule determination, 27 November 2014, Sydney ; AEMC, *Expanding competition in metering and related services rule change*, ERC0169; AEMC, *Optional Firm Access, Design and Testing*, EPR0039. More information on these projects can be found on the AEMC website: www.aemc.gov.au.

However, whether an OTC contract counterparty default would threaten the financial stability of the NEM would depend on a broad spectrum of variables at the time, including:

- the participant's own risk management practices. In particular, whether the participant holds sufficient capital reserves to absorb the impact of financial shocks and could obtain additional funding to manage any short term cash flow impacts;
- whether the default coincides with other unfavourable or unexpected events occurring. For example, high spot prices together with generation plant outages and a squeeze on the general availability of credit, would magnify the impacts of a counterparty default; and
- the degree of concentration of hedge contracts between participants. Where there are fewer participants, the concentrations of hedge contracts held by each participant would likely be higher and the impacts of the counterparty default could be more severe.

The Retailer of Last Resort scheme

The ROLR scheme is intended to enable continued supply to, and orderly transfer of, a failed retailer's customers to another retailer while preserving the integrity of the settlement of the spot market.

A threat to financial stability in the NEM would arise if a large retailer experienced financial distress and triggered the application of the ROLR scheme in its current form. This is because of the additional financial obligations that would be placed on a ROLR if it acquires a large number of customers, which would need to be met in a very short timeframe. If these obligations cannot be met by the ROLR, further failures may occur.

The key challenges for a ROLR are:

- **Cash flow risk**, as the ROLR would be required to make additional purchases of electricity to cover the inherited retail load, but may only invoice and receive payments from their transferred customers up to a three month period following the ROLR event. If spot market prices are high, this burden could be compounded; and
- **Additional credit support** in relation to the transferred customers, which must be provided to AEMO and may be required by distribution network service providers. If the ROLR event occurs at a time when the financial market faces a degree of distress, it may be difficult to find sources of finance, or finance may be provided at a higher cost than under normal circumstances.

The Commission's recommendations

The need for new measures and changes to existing arrangements

The ROLR scheme is the main mechanism used to respond to the failure of a retailer in the NEM. In addition, there are a number of other arrangements that apply in response to a participant experiencing financial distress or failure. They include participant suspension provisions under the NER, applied by AEMO, and revocation of retailer authorisations and related decisions under the NERL, made by the Australian Energy Regulator (AER). Recommendations for improving the application of the ROLR scheme and participant suspension provisions to better manage and respond to participant failures are discussed below.

Even where these improvements are taken into account, there is still a need to be better prepared to respond to a *large* participant failure by allowing:

- responses to be tailored to the specific case of the defaulting participant and the market situation at that time, as a large participant failure would be complex, and the circumstances would be different in each case;
- decisions to be made in a coordinated manner across government and market regulatory bodies to avoid contradictory outcomes;
- consideration of a wide range of issues by decision makers, including the impacts that such a failure could have on the broader economy; and
- government involvement in responding to the failure. Governments would be critically interested in a large participant default and would seek to maintain consumer and market confidence.

Recommended new framework for managing and responding to a failure of a systemically important market participant

The Commission recommends a new set of arrangements to better manage and respond to the failure of a *large* participant. These arrangements include:

- Participants whose failure, because of the size of their retail loads, would cause significant and immediate financial disruption to the electricity market and would likely threaten the financial stability of the NEM by triggering financial contagion, should be classified as 'systemically important market participants' (SIMPs).
- The establishment of a separate framework to facilitate a timely, proportionate and suitable response to a SIMP experiencing significant financial distress or failure. For participants not classified as SIMPs, the current arrangements, appropriately enhanced by the recommendations in this report, would continue to apply.

- All of the decisions on the management of, and response to, a SIMP failure should be gathered to, and made at, a single decision-making point. This would include decisions regarding suspension and revocation of retailer authorisations that are currently made by AEMO and the AER.
- Decision-making would be guided by an objective to maintain the financial stability of the NEM as a whole by minimising the impact of the failure of a SIMP on consumers and the market in accordance with the National Electricity Objective and the National Energy Retail Objective.

Given the breadth of impacts of such a situation, decision-making would best be held by a body that has overall responsibility for the market. Under the current NEM governance arrangements, government has responsibility for the market as a whole and can take into account the factors and considerations relevant to the circumstances, including the broader economic impacts. Government is best placed to make these decisions.

Within government, there needs to be a single decision-maker, for accountability and transparency. Due to the national character of SIMPs, the Chair of the COAG Energy Council should be the ultimate decision-maker, in close cooperation with State and Territory energy ministers. The Commission notes that this role could be delegated by the Chair of the COAG Energy Council if considered appropriate to do so, as long as this delegate had access to the same powers, resources and advice that would be available to the Chair of the COAG Energy Council.

To assist government in decision-making, the Commission recommends relevant market regulatory bodies provide advice in a coordinated way using their existing powers, through a 'NEM Resilience Council'. It would comprise the AEMC, the AER, AEMO, and the Australian Securities and Investment Commission (ASIC). These bodies would help to provide the Chair of the COAG Energy Council with the necessary expertise and information to develop an appropriate response to a SIMP failure which takes into account the potential implications on market participants, consumers, and the operation and structure of the market more broadly, as well the NEM's financial stability.

Amongst other things, the Council would:

- where a SIMP has failed, advise on the best course of action to meet the objective of maintaining the financial stability of the NEM by minimising the impacts of the failure on consumers and the market; and
- consider potential threats to the financial stability of the NEM on an ongoing basis.

The key decisions to be made by the Chair of the COAG Energy Council under the proposed framework would be:

- whether to allow the SIMP time to rectify its financial situation. This would enable time for all viable commercial solutions for resolving the situation to be explored before any regulatory arrangements may have to be applied, as compared to the existing arrangements for responding to a participant failure; and

- where the SIMP must be suspended from the market, a choice between applying the ROLR scheme, or alternative stability arrangements. Alternative stability arrangements are discussed further below.

Recommended changes to the existing Retailer of Last Resort scheme

The Commission recommends changes to the existing ROLR scheme to target the cash flow and additional credit support challenges faced by a ROLR. If implemented, financial shocks to the NEM could be absorbed more readily and risks to system stability would be reduced through a more effective sharing of risks across the market. The Commission's recommended changes to the ROLR scheme include:

- revised ROLR cost recovery arrangements, to give the ROLRs greater certainty that it can quickly recover its costs, by clarifying the type of costs allowed and enabling the AER to undertake a fast track cost recovery process where costs are clearly identifiable and quantifiable;
- delayed designation of ROLRs by 24 hours, to increase the potential for the AER to appoint multiple ROLRs;
- increased awareness and creation of incentives for very large customers to negotiate their own alternative retailer should a ROLR event occur; and
- delayed additional credit support requirements for the ROLR's acquired load for AEMO and distribution network service providers.

As the ROLR scheme in the NERL currently applies to both electricity and gas retailer failures, the Commission recommends that the COAG Energy Council also consider applying its proposed changes to the ROLR scheme to gas retailers to provide for a simpler and more comprehensive implementation of these changes.

Recommended changes to existing participant suspension provisions under the National Electricity Rules

The Commission recommends that the ability and framework for not suspending a participant, or parts of its activities, from the market be clarified in the NER. For participants under external administration, AEMO should be required to consider a number of defined factors which would be set out in the NER in determining whether the participant or parts of its activities should be allowed to continue operating. This would assist in minimising the financial risks to the market and other participants that may occur where a participant under external administration is allowed to continue operating.

These changes are recommended as the current NER gives rise to uncertainty as to whether a generator could remain operating in the market if it is in administration or if it is part of a registration that includes a retail business and that business was suspended, or is itself in administration. It could however be beneficial for the financial stability of the NEM to allow the generation assets to remain operating in the market in such a situation.

Recommended further development of alternative stability arrangements

The ROLR scheme may not be effective in all situations of a SIMP failure, even with the implementation of the recommended changes to the ROLR scheme. In addition, external administration under Australian law cannot be relied on to ensure an outcome consistent with minimising disruptions to customers and maintaining the financial stability of the NEM. This is because the primary objective of standard forms of external administration is to obtain the best financial recovery possible for the creditors of the failed business. In the case of electricity retail businesses this could result in decisions that focus on realising the company's assets, even where this threatens retail services to customers or the financial stability of the NEM.

For this reason, there is merit in having in place an alternative to the ROLR scheme which could apply when a SIMP fails. These alternative stability arrangements would involve a form of special external administration or management. There are precedents for establishing specific forms of external administration to address particular industries or important national interests to deal with situations that are not able to be satisfactorily dealt with by standard forms of external administration. Examples include the judicial management regime for the Australian insurance sector and the special administration regime for energy supply companies in Britain.

The objective of the judicial management regime for Australian insurance sector is to determine the best course of action in the interests of policyholders and the stability of the financial system in Australia, while the objective of the special administration regime for energy supply companies in Britain is the continuity of supply of energy to customers. These regimes acknowledge and seek to address the risk that the interests of customers and the broader financial system may be inconsistent with the interests of creditors under standard forms of external administration.

For these reasons, the Commission considers that alternative stability arrangements should be developed as an option which could be applied where a SIMP fails. Given the breadth of considerations to be taken into account in developing some form of stability arrangements, including insolvency processes and the potential for significant funding requirements, the Commission has not made detailed recommendations about the design of suitable stability arrangements.

Any stability arrangements would require a package of legislative and regulatory changes and funding provisions, extending beyond the electricity regulatory framework. The assessment, design and implementation of stability arrangements would be complex and would need to involve a range of stakeholders, both within the electricity sector and outside it. It would also involve trade-offs between different interests which are a matter for public policy and best considered at government level. Therefore, the Commission recommends these arrangements be further developed by jurisdictional energy departments in consultation with Commonwealth, State and Territory Treasuries. The need to strengthen and increase the range of options available to respond to participant failure was also highlighted as part of the inquiry into the Australian financial system.[6]

Advice on additional regulatory measures for identifying and mitigating potential risks to financial stability in advance

Market participants’ risk management practices are the main mechanism to identify and mitigate in advance potential risks to the financial stability of the NEM. However, these practices cannot be solely relied on, or expected to, eliminate all potential risks to the financial stability of the NEM. Even with very diligent risk management by participants:

- a participant's incentives to manage its own risks carefully would not necessarily take account of the potential systemic consequences of their failure;
- industry structure may limit the possibility for participants to adequately diversify potential risks among a wide number of counterparties; and
- participants could never have all the information needed to correctly assess the probability of counterparty failure under OTC contracts and the impacts of such a failure on their businesses.

Most participants maintain an Australian Financial Service Licence. However, requirements under the Australian Financial Service Licence do not aim to preserve financial system stability in the NEM.

Given this, the Commission has considered additional regulatory measures that seek to prevent threats to the NEM’s financial stability through the regulation of individual market participants. They included prudential regulation, mandatory stress testing and increased transparency measures.

Currently, the case is not established for mandating such additional preventative measures in the NEM, for the following reasons:

- Introducing such measures would require substantial resources and expertise to be effective. The costs of doing so would likely outweigh the potential benefit of reducing potential risks in the NEM.
- The nature and magnitude of potential risks to financial stability in the electricity sector differ from those in the financial sector, where such measures are common. For instance, a failure of a NEM participant would not cause major instability to the overall financial system given the relatively small extent of exposure the financial sector has towards the NEM.

6 The Financial System Inquiry 2014(Murray), *Final Report*, 7 December 2014, p35.

- The measures would not address a key potential risk to the financial stability of the NEM - the application of the ROLR scheme.

Also, the Commission considers that the case for implementing the proposed reforms relating to OTC derivatives developed by the Group of 20 (G20) countries for electricity participants has not yet been made when considered against the National Electricity Objective.

Stakeholder engagement during the Review and next steps for implementation

In undertaking this Review, the Commission and its staff have engaged with a number of stakeholders in the energy and finance sectors. The Commission appreciates the advice and information provided by them, including the time and resources they have committed throughout this Review in assisting with the development of the Commission’s recommendations.

The next steps for the implementation of the Commission's recommendations are set out below.

Table 1 Implementation of the Commission's recommendations

Recommendation	Implementation process
Implementation of a separate decision making framework for responding to a SIMP failure to minimise disruptions to customers and maintain the financial stability of the NEM and public confidence.	COAG Energy Council to develop the necessary legislative amendments and submit rule changes to the Commission. A draft scope of work has been included in this report in Appendix D.
Changes to the ROLR scheme to enable it to apply in a broader range of circumstances, including changes to: • ROLR cost recovery arrangements; • Delayed designation of ROLRs; • Enhancements to the way the ROLR scheme applies to very large customers; and • Delayed additional credit support requirements for AEMO and distribution network service providers.	COAG Energy Council to develop changes to the NERL. The Commission recommends the COAG Energy Council also consider applying the proposed changes to the ROLR scheme to gas retailers to provide for a simpler and more comprehensive implementation of these changes to the NERL. To implement the proposed changes to the ROLR's credit support requirements, COAG Energy Council to submit a rule change request to the Commission to amend the NER. Details of the changes required to the NERL and draft NER changes have been published with this report.
Clarification of AEMO's ability and framework for not suspending market participants under external administration to facilitate NEM financial system stability.	COAG Energy Council to submit a rule change request to the Commission to amend the NER. Proposed draft changes to the NER have been published with this report.
Development of alternative stability arrangements which could be applied in the event of a SIMP failure, where the ROLR scheme and standard forms of external administration, may not be effective to maintain NEM financial system stability.	COAG Energy Council to request jurisdictional energy departments, in consultation with Commonwealth and State and Territory Treasuries, to develop the detailed design of stability arrangements for the NEM, involving a form of special external administration. A draft scope of work has been included in this report in Appendix E.
Advice on the application of G20 reforms for OTC derivatives to electricity market participants in the NEM.	COAG Energy Council to note the Commission's advice to not adopt these reforms for electricity market participants in the NEM.

Contents

1 Introduction

The Australian Energy Market Commission (AEMC or Commission) has identified and assessed the threats to financial system stability in the National Electricity Market (NEM) arising from the interdependencies between market participants.

This report sets out the Commission's conclusions and final recommendations to strengthen arrangements to address these threats and improve the financial resilience of the NEM.

This chapter summarises and sets out the context for this request for advice from the Council of Australian Governments' (COAG) Energy Council.[7]

1.1 Request for advice

The COAG Energy Council asked the Commission to provide advice on:

- the risks to financial system stability in the NEM arising from interdependencies between market participants, as a result of their exposure to a common spot price and hedging arrangements, and the impact of these risks if they materialise;
- existing mechanisms to manage these risks, and whether they are adequate; and
- if existing mechanisms are inadequate, how to strengthen, enhance or supplement these mechanisms.

The aim of the request was to consider whether the financial relationships and market arrangements underpinning the NEM are sufficiently robust to manage the financial consequences of a market participant (or participants) defaulting on its obligations. If current arrangements are not considered adequate, the Commission was requested to make recommendations to strengthen the financial resilience of the NEM.

As noted in the COAG Energy Council's request for advice, market participants need to manage their own financial and commercial positions. The objective is therefore not to prevent an individual participant from failing or leaving the market; rather, the focus is on minimising disruptions to consumers and maintaining the financial stability of the NEM and public confidence.

Consistent with the request for advice, the Commission has developed its recommendations in the context of the NEM. Specific considerations regarding the potential interaction with the gas market, or other markets, are outside the scope of this advice.

7 The COAG Energy Council was formerly the Standing Council of Energy and Resources.

1.1.1 Context to the request for advice

The NEM has operated effectively, with businesses entering and exiting the market without disruption. NEM financial markets are generally robust and have been able to evolve to accommodate major events and changes in market circumstances. There have not been any major failures of retailers or generators in the NEM to date.

However, events over the past years, such as the global financial crisis (GFC), have caused policy makers and regulators to reconsider their approaches to financial system stability and risk management. While recognising the strong track record of the NEM to date, the environment in which the NEM operates has evolved significantly since market start, including the industry structure, the range of financial instruments available, and regulatory obligations that apply. The range of challenges that the NEM has faced, and may face over the coming years, increases the importance of

- understanding potential threats to the financial stability of the NEM; and
- being prepared to manage and respond to risks to the financial stability of the NEM if they occur.

It is in this context that the COAG Energy Council requested the Commission to provide its advice. The Commission has drawn on experiences in other sectors and countries in developing its recommendations.

1.1.2 Key concepts for the review

Generators, retailers and other businesses that participate in the NEM have complex financial relationships with each other. There are different channels through which financial payments flow to and from market participants. These financial interdependencies contribute to the efficient operation of the NEM, but also introduce potential risks to the NEM's financial system stability.

Financial system stability or financial stability in the NEM refers to the smooth flow of funds between market participants, so that the financial framework that supports the buying and selling of electricity continues to operate as intended. It relates to the stability of the financial framework as a whole, and not the financial position of individual market participants in the NEM.

The financial interdependencies between market participants mean that the financial position of one market participant can impact other market participants. One participant experiencing some form of financial distress can affect others. If this becomes extreme, it is referred to as financial contagion. **Financial contagion** has the potential to threaten financial system stability in the NEM through causing the cascading failure of multiple participants. In such circumstances, the financial relationships that support the efficient operation of the NEM could break down. This is referred to as **systemic risk**.

Financial system stability or financial stability in the NEM is dependent on the market being able to absorb shocks. Whilst the likelihood of such shocks occurring is uncertain, the failure of a large market participant could have severe flow-on effects in the market. This would include damage to consumer and investor confidence.

The emergence of financial contagion could, therefore, lead to **financial system instability** in the NEM. In the extreme, financial system instability could compromise the physical supply of electricity and the achievement of the National Electricity Objective (NEO) and the National Energy Retail Objective (NERO).

1.1.3 Experience of the global financial crisis

The experience of the GFC has demonstrated how quickly confidence can be eroded, and how quickly funding and liquidity problems can arise. The GFC demonstrated the potential for financial difficulties to be transmitted quickly from one business to another, resulting in financial system instability that had widespread negative effects on the efficiency of the economy.

The magnitude and speed with which the impacts of the GFC were transmitted from one participant to another (and one sector to another) have triggered financial regulators worldwide to implement broad measures to address system stability issues.

The experience with the GFC has also caused regulators and policy makers for other markets in which participants are financially linked to consider whether financial contagion, and the potential for financial instability, could occur and, if so, what could be done to address it. One such market is the NEM.

1.1.4 Work undertaken to date

In accordance with the COAG Energy Council's request for advice, the Commission has:

- developed an understanding of the risks facing market participants in the NEM and of existing arrangements to manage these risks;
- identified financial relationships between NEM participants and assessed how those relationships could act to transmit financial distress in the market, potentially causing financial contagion and risks to NEM financial system stability;
- evaluated whether existing arrangements to identify, mitigate and respond to risks to financial system stability in the NEM are adequate; and
- assessed a range of measures which could be implemented in order to mitigate risks to financial system stability.

The measures considered include the Group of 20 (G20) recommendations on reforms in the over-the-counter (OTC) derivative market, which Australia is currently in the process of implementing. The Commonwealth Treasury has stated that the Australian Government will consider whether it is appropriate to impose any G20 requirements in relation to electricity derivatives after the completion of the Commission's advice.[8] Chapter 11 contains the Commission's advice on these G20 reforms.

The questions raised in the COAG Energy Council's request have been approached in three stages:

- Stage one focussed on risks that could arise if a large electricity retailer experienced financial distress and triggered the operation of the retailer of last resort scheme.
- Stage two examined other potential sources of financial instability and 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 three set out the Commission's draft advice in relation to the potential risks to system stability in the NEM and its recommendations to improve the resilience of the NEM to manage and respond to the financial distress and failure of participants.

This report brings together the Commission's analysis from the three stages and presents an overall assessment, including final recommendations, in response to the COAG Energy Council's request for advice. Appendix A provides further detail on the stages and progress of this Review since its commencement.

1.1.5 Developments in financial sector regulation

The request for advice asked the Commission to consider approaches to financial stability regulation in other markets and relevant developments in the financial sector.

Reforms in the financial sector reflect a need to minimise the expectation of taxpayer funds being used to support the financial system. This is particularly the case where urgent intervention is required to prevent the failure of a major institution, but the terms of that intervention are not known. This point has been made in the final report published for the recent inquiry into the Australian financial system.[9]

As part of this advice, the Commission had published a separate paper in September 2014 which explained the reforms being introduced, both in Australia and overseas, to improve the resilience of the financial sector following the GFC.[10] The paper reviewed

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8 See The Treasury, *Implementation of Australia's G-20 over-the-counter derivative commitments*, proposals paper, December 2012, pp13-14; and Ministerial trade reporting determination, Section 901B(2) Corporations Act 2001, explanatory statement, 2 May 2013, paragraph 15; and The Treasury, *Implementation of Australia's G-20 over-the-counter derivatives commitments*, proposals paper G4-IRD central clearing mandate, February 2014, p1.

9 The Financial System Inquiry 2014 (Murray), *Final Report*, 7 December 2014, p 11-12.

10 AEMC, NEM financial market resilience, Review of system stability arrangements in the financial sector, 18 September 2014.

some of the major regulatory reforms that have occurred in the financial sector since the GFC, and discussed the implications for the Commission's advice on financial market resilience in the NEM.

While drawing on the current regulatory approaches in the financial sector, the Commission does not suggest that the electricity market must be regulated in the same way. These developments have been considered as a source of information and guidance about what works, and what does not work, in regulating for financial system stability. In developing its final recommendations, the Commission has been cognisant of the differences between the electricity sector and the financial sector.

1.1.6 Stakeholder participation

The COAG Energy Council's request for advice required the Commission to draw on input from market participants and regulatory bodies in preparing its advice, including through an industry working group and an advisory committee. The membership of each of these groups is set out in Appendix A.

The input of stakeholders in preparing this advice has been very valuable. The industry working group has been helpful in explaining the nature of the financial relationships in the NEM and the potential risks arising from those relationships from the perspective of market participants. It has also helped to explain the approaches and measures taken by participants to mitigate those risks.

An advisory committee was also established so that any recommendations the Commission makes incorporate the consideration of all relevant policy and regulatory requirements. The committee comprised representatives from Commonwealth Treasury, the Australian Energy Regulator (AER), the Australian Securities and Investments Commission (ASIC), the Australian Energy Market Operator (AEMO) and COAG Energy Council officials.

Engagement with a broader range of stakeholders in both the energy and finance sectors has also been important. A number of papers have been published since the commencement of this Review for stakeholder comments and stakeholder views have been incorporated into this report.

The Commission appreciate the advice and evidence provided by various stakeholders, including the time and resources they have committed to this project.

1.2 The impacts of financial system instability in the NEM

The isolated failure of one participant in the NEM will not necessarily result in financial system instability in the NEM. The entry and exit of individual participants is a natural feature of any competitive market and it may lead to opportunities for new, more efficient, businesses to enter the market.

However, financial contagion is a different matter. Financial system instability in the NEM, if it occurred, could result in reduced investor confidence, threats to security of supply and reduced competition. Even if electricity continues to be supplied, consumers could experience higher prices and less reliable supply if investment is deterred. These risks are likely to be pronounced if investors consider that regulatory arrangements contributed to the financial contagion causing system instability; and that, as a result, financial instability could be repeated in future.

The effects of financial system instability in the NEM could also erode confidence in the market structure and make consumers, governments and their agencies more risk averse. Such a response was evident during, and following, the GFC. These effects could threaten the ongoing efficiency of the market itself and may substantially damage the long term interests of consumers.

The failure of NEM participants would not cause major instability to the overall financial system, given the extent of the exposures of financial sector participants towards the NEM. The effect of multiple electricity participants failing would not, however, be contained within the electricity market and could cause significant disruptions to the wider Australian economy. This could occur by affecting the ability of customers to access reliable and efficiently priced sources of electricity and by damaging investor confidence in the Australian economy.

In preparing this advice, the Commission has considered the occurrence of these potential impacts of financial system instability in the NEM.

1.3 Assessment framework

The Commission has been guided by the NEO and the COAG Energy Council's request for advice in developing its recommendations. The NEO is set out in section 7 of the National Electricity Law (NEL):

> "The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to: (a) price, quality, safety, reliability and security of supply of electricity; and (b) the reliability, safety and security of the national electricity system."

In addition, the Commission has considered the NERO, which is set out in section 13 of the National Energy Retail Law (NERL):

> "The objective of this Law is to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy."

The Commission is only recommending a measure to improve existing arrangements if it considers that:

- the existing arrangements could be enhanced, strengthened or supplemented; and

- implementation of the measure would be likely to promote efficient investment in, and efficient operation and use of electricity services for the long term interests of electricity consumers in accordance with the NEO and NERO.

New measures have been assessed against the counterfactual of not implementing any new measures. Taking into consideration stakeholders' views on the risk of financial system instability in the NEM, a package of final recommendations has been developed consistent with the following criteria:

- contribute to a reduction of the risk of financial contagion in the NEM;
- consistent with efficient allocation of risk in the market;
- effective, and unlikely to lead to perverse behaviour or moral hazard;
- transparent and accountable; and
- proportionate to the impact on the market of the risk being addressed.

In developing its final recommendations, the Commission has taken into account the impact of these proposals on the allocation of risk between different parties, including retailers, generators, network service providers, customers, creditors, government, and ultimately, taxpayers. Risk should be borne by the party with the ability, information and incentives to manage it.

In assessing the likely effectiveness of any measure, we have had regard to the potential for participants to undermine its effectiveness through altering their behaviour. Of relevance has also been how any new measure would relate to existing obligations on market participants, such as those under the Corporations Act and accounting and auditing standards.

Avoiding moral hazard is consistent with the COAG Energy Council's request for advice, which identifies the need for market participants to manage their own financial and commercial positions.[11] The Commission's final recommendations aim to maintain commercial incentives on businesses to efficiently manage their risks of operating in the NEM, as this is a key mechanism to protect against financial contagion.

The recommendations are clear in terms of responsibility and accountability. This is critical in circumstances where participants are experiencing financial distress.

Recommendations are proportionate if they do not impose costs that are out of line with the likely benefits of the changes. Options that are simple and easy to implement have been preferred over more complex solutions, unless there are clear benefits in adopting a more complex solution.

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11 Moral hazard can arise where an individual or business does not bear the full costs of the risks they take. As a result, they may have an incentive or tendency to take on more than an optimal level of risk, knowing that they will not bear the full cost of any detrimental consequences.

1.4 Structure of the report

The report responds to the request for advice as follows.

Identification of risks to financial system stability in the NEM:

- Chapter 2 explains the financial interdependencies in the NEM and the implications for financial system stability arising from those interdependencies.
- Chapter 3 discusses the application of the retailer of last resort scheme.

Assessment of existing mechanisms to manage risks to financial system stability in the NEM:

- Chapter 4 provides an assessment of current arrangements that seek to identify and mitigate potential threats to the NEM’s financial stability prior to any participant failure.
- Chapter 5 sets out the Commission's assessment of how current market arrangements respond to and manage a participant failure.

Recommendations on how to strengthen, enhance or supplement existing mechanisms:

- Chapter 6 discusses recommendations for improving how market arrangements respond to a large participant failure in the NEM.
- Chapter 7 discusses possible alternative stability arrangements to operate in place of the retailer of last resort scheme in the case of large retailer failure.
- Chapter 8 contains advice on amendments to the retailer of last resort scheme.
- Chapter 9 outlines amendments to the NER participant suspension provisions.
- Chapter 10 sets outs recommendations on measures relating to risk management practices in the NEM.
- Chapter 11 provides advice on the G20 recommendations for OTC electricity derivatives reform for NEM participants.
- Chapter 12 sets out the implementation process for the Commission's recommendations, if they are endorsed by the COAG Energy Council.

The appendices to this report include:

- Appendix A provides an overview of the approach and reports in this project, and includes membership lists for the industry working group and the advisory committee.

- Appendix B contains a summary of submissions by stakeholders to the second interim report and the Commission's response to comments made.
- Appendix C contains the modelling assumptions for the potential effects of a retailer failure.
- Appendix D contains a draft terms of reference for further work to implement the proposed framework for responding to a large participant failure in the NEM.
- Appendix E contains a draft terms of reference for further work on the design of alternative stability arrangements.
- Appendix F outlines further detail of case studies where, similarly to the Commission's proposed framework for a large retailer failure, decision making is elevated to manage crises or allow broader policy considerations to be taken into account.

2 Financial stability in the NEM and financial interdependencies

Market participants in the NEM are constantly engaged in the process of accruing and discharging a range of financial obligations between each other, AEMO and other parties. Some of the key financial relationships in the NEM arise via the spot market, exchange traded derivatives (futures) and OTC derivative contracts.

Market participants are exposed to a variety of risks when buying and selling electricity in the NEM. These risks include settlement risk, market risk, credit risk and cash-flow risk. Managing these risks concurrently involves continuous trade-off decisions between the different types of risk. The use of spot market trading, exchange traded derivatives and OTC contracts by each participant will reflect its approach to managing the risks and benefits of trading in the NEM.

For spot market trading and exchange traded derivatives, regulatory and compliance arrangements are in place to manage the risk of settlement shortfall and counterparty default. Such arrangements:

- act to diversify the risk of participant failure across a large number of businesses and therefore the effects of a failure are not concentrated on a single participant. For example, in the spot market, all generators are exposed to any shortfall in settlement payments.
- require participants to pay daily variation margins for exchange traded derivatives, which act to protect against the impacts of a participant failing.

For the OTC market, the quality of credit risk management depends on individual participants' risk management practices, and the extent to which their financial reserves can absorb counterparty default losses. Consequently, if one participant encounters significant financial difficulties, those difficulties could be transmitted to other participants.

A failure of an OTC contract counterparty to meet its obligations could result in other participants being exposed to spot prices for a substantial part of their retail load or generation capacity. In addition, they would experience losses associated with a counterparty failing to meet payments under its contract obligations. The risks of financial contagion from OTC counterparty default are more likely to exist where a retailer has a high concentration of hedge contracts with a large generator, and that generator defaults on its OTC contracts.

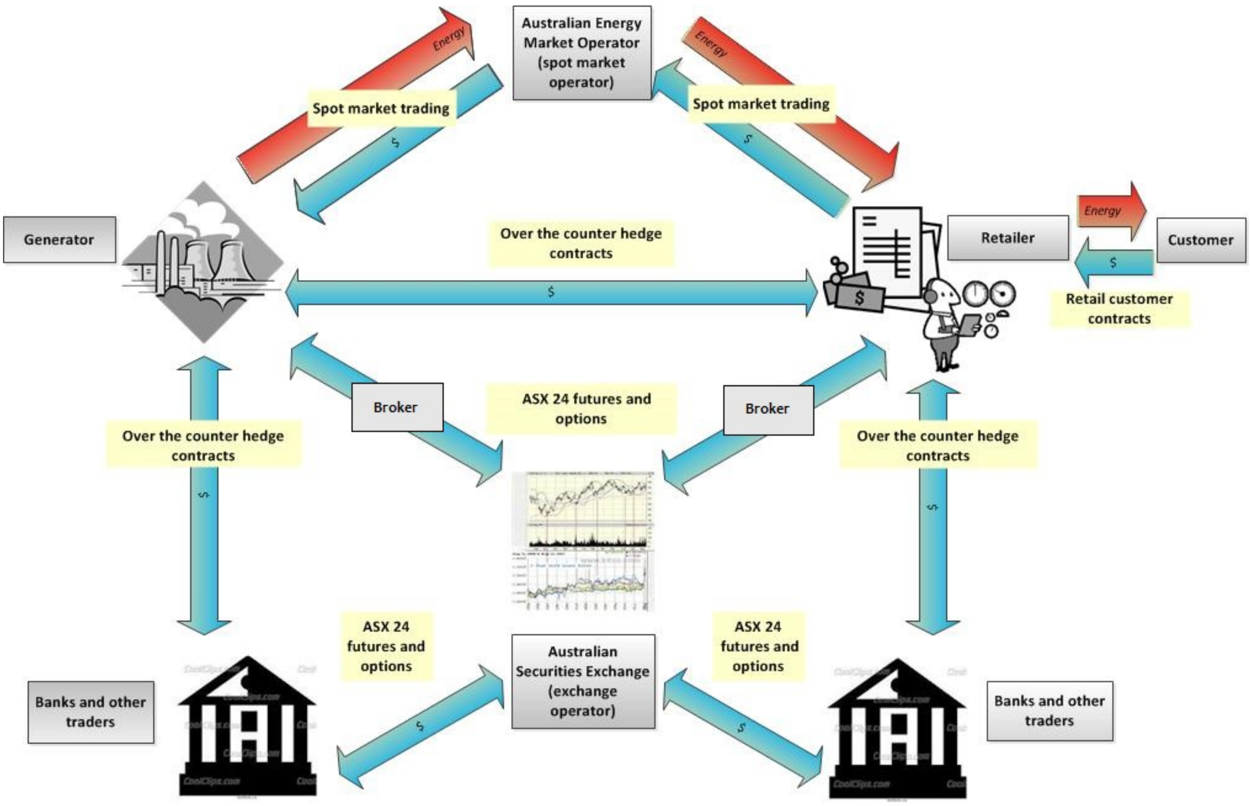
The likelihood of financial contagion occurring in the NEM is uncertain as it is dependent on a range of variables, such as the ability of the participant to source additional funding and the market circumstances at the time, amongst others. While there are risks inherent in each type of electricity trading, OTC counterparty default could be more likely lead to NEM financial instability.

This chapter discusses the main financial relationships in the NEM and explains which of those interdependencies could act to transmit financial contagion, thereby threatening financial system stability in the NEM.

2.1 Financial Interdependencies in the NEM

Figure 2.1 illustrates that interdependencies between market participants exist through financial relationships in both the spot market (the top half of the figure) and in the financial contract market (the bottom half of the figure).

Figure 2.1 Financial relationships between market participants in the NEM



The physical delivery of electricity, shown in red in figure 2.1, occurs through the wholesale and retail electricity markets. Most generators participating in the NEM sell all their electricity through the spot market, which is operated by AEMO. Retailers buy almost all of their electricity through this market, which is supplied to their customers.

Apart from the physical delivery of electricity described above, all of the other relationships in figure 2.1 involve financial transactions (shown in blue), and not the supply of electricity.

The transactions shown as 'spot market trading' in figure 2.1 involve generators receiving payment for all electricity they sell on the spot market, and retailers paying for the electricity their customers use. This settlement process is managed by AEMO.

Generators and retailers seek to manage spot price risks through a range of strategies. Electricity cannot be stored and there is a need for real time matching of supply and demand. One option is to enter into financial relationships with each other and with other market participants, known as 'derivative' or 'hedge' contracts, which are illustrated in figure 2.1. The two main types of hedge contracts, shown in the figure, are OTC hedge contracts and futures/options traded on the Australian Securities Exchange 24 (ASX 24).

In summary, there are three main channels through which market participants are financially interconnected, being:

1. in the spot market, via the settlements process that is managed by AEMO. In particular, generators are dependent on retailers making payments for the purchase of electricity through the spot market;

2. through the ASX 24 which is a centralised exchange that offers standardised electricity futures and options products;[12] and

3. through bilateral OTC hedge contracts between participants and sometimes intermediaries. Participants use OTCs to manage the risk of variations in the wholesale regional spot prices.

These financial relationships can create a high level of financial interdependency between market participants.

Financial interdependencies could also be manifested via indirect channels. For example, the failure of a large market participant could shrink liquidity in the contract markets and intensify the financial impact felt by other participants. It could cause funding providers to increase financing costs or retreat from the market. Further, if a participant is forced to sell assets in a time of financial stress, that could affect the value of similar assets held by other participants as well.

The GFC highlighted that the failure of one institution to honour its financial commitments can create difficulties for other institutions. As fear increases that similar commitments made by other institutions may be dishonoured, funding and asset markets can freeze, resulting in the transmission of financial contagion across the system.

2.2 Risks faced by market participants

Market participants are exposed to a variety of risks when buying and selling electricity in the NEM, including settlement risk, market risk, credit risk and cash-flow risk.

Managing these risks is an integral part of a participant's day-to-day operations and involves continuous trade-off decisions between degrees of exposure to the various sources of risk. This section describes these risks associated with operating in the NEM.

12 These products are explained in more detail in stage two options paper. See AEMC, *Stage two options paper*, 8 November 2013, section 3.1.2.

2.2.1 Settlement risk

The NEM is a "gross pool" because it is compulsory for most generators to sell their entire electricity output into the spot market.

Retailers pay AEMO for the electricity their customers consume, and AEMO subsequently pays generators for the electricity they supply into the market. This settlement process occurs weekly about 33 days in arrears, which means payments for electricity bought are made four weeks in arrears. This creates a risk for generators that one or more retailers may be unable to pay their bill when the payment is due. This is known as settlement risk.

The National Electricity Rules (NER) contain a regime that is designed to protect generators in the NEM against a settlement shortfall arising from non-payment by retailers. Under the current rules, AEMO determines a maximum credit limit (MCL) for each participant based on a 2 per cent probability that a participant's outstandings to AEMO will exceed its MCL by the time the participant is suspended from the market, restricting residual settlement risk to very low probability events.[13]A participant must provide an amount of credit support to AEMO which is at least equal to its MCL.[14]

Participants also have a trading limit, which is currently set in relation to their MCL.[15] The margin between the credit and trading limits is designed to cover AEMO's potential liabilities during a seven day reaction period, representing the expected amount of time required to suspend a participant. If a participant exceeded its trading limit it would be required to provide additional cash or credit support to AEMO.

Market participants can reduce the required prudential credit support by the use of reallocation arrangements. This is a financial arrangement between two market participants and AEMO. The objective is to provide energy settlement and credit support relief to a market participant who has an existing off-market contract in place, such as an energy delivery contract or a hedge contract.[16] A reallocation arrangement allows the financial commitments existing under that off-market contract to be netted off against spot market settlement obligations without adversely affecting the prudential quality in the NEM.[17]

13 NER, clause 3.3.4A. The 2 per cent probability is referred to as the NEM prudential standard.

14 NER, clause 3.3.5.

15 NER, clause 3.3.10.

16 NER, section 3.15.11

17 A similar mechanism has been proposed for the future markets through a futures offset arrangement. This was discussed in AEMC, *Review into the role of hedging contracts in the existing NEM prudential framework*, final report, 27 July 2010.

2.2.2 Market risk

Retailers normally charge customers an electricity price that shields customers from direct exposure to spot price volatility in the wholesale market.[18] Retailers must manage the risk of an input with a highly volatile price, while supplying an output to their customers with a more-or-less fixed price.

Spot price volatility also creates risks for generators, due to the risk of periods of low prices. Generation investment involves large fixed costs, and significant ongoing operating and maintenance costs. However generators do not have any certainty as to the spot market revenue they will receive from operating. If spot prices are below a generator's costs on a sustained basis, it could encounter financial difficulties.

Generators and retailers seek to manage these risks by entering into a range of financial relationships with each other and with other financial market participants. Given the opposing payoffs to retailers and generators from high and low spot prices, there is a mutually beneficial opportunity for both types of participants to enter into financial relationships that allow them to better manage their risks.

Derivatives

The most commonly used instruments to hedge against market risks are 'derivative', or 'hedge', contracts. These contracts are called derivative contracts because their value is linked to the underlying commodity price, in this case, the wholesale electricity price. Such contracts create an offsetting payment or revenue stream that balances out the change in the spot price (therefore, they are sometimes called 'contracts-for-difference'), in effect hedging the generator’s or retailer's spot price exposure.

Derivative contracts can be negotiated bilaterally, in the form of an OTC contract or traded on an exchange.

Electricity derivatives can be used to manage both price and volume risks - for example, through the development of specialised contracts which are specifically tailored to a retailer's volume patterns (eg, 'load-following' hedges). This is different to other common types of derivatives, such as interest rates and foreign exchange products, which are mostly used to manage price risk only. This distinct characteristic of electricity derivatives results in the development of specialised contracts which are specifically tailored to a retailer’s volume patterns.

During 2013-14, the total volume of OTC contracts reported was 251 million MWhs. This is equivalent to 1.4 times the total NEM demand of 179 million MWhs during that year. For the same period, volume on the ASX 24 energy futures exchange traded 2.2 times underlying NEM system demand. Therefore in total, derivative contracts relating to the NEM were approximately 3.6 times total demand during the 2013-14 financial year. The Commission notes that both the liquidity of the derivatives contracts

18 Spot price volatility can create significant risks for retailers. For example, just one hour at the current market price cap of $13,500/MWh could result in a large retailer incurring spot market liabilities of tens of millions of dollars to cover the electricity used by its customers.

available and the volume of contracts traded vary significantly between NEM regions.[19]

Combined generation/retail business

An alternative approach for participants to hedge spot price risk is to operate both generation and retailing businesses. Such participants are referred to as 'gentailers'. To the extent its generation and retailing exposures to the wholesale market match, a gentailer has a 'natural hedge' against movements in the spot price of electricity. The vertical integration of generators and retailers has been a significant trend in the NEM over recent years. A significant share of both wholesale and retail electricity markets is now supplied by gentailers. Origin, EnergyAustralia and AGL collectively accounted for more than 70 per cent of electricity customers as at 30 June 2014 and have 46 per cent of generation capacity in the NEM.[20]

2.2.3 Credit risk

Credit risk arises from the possibility of a participant's contracted counterparty defaulting on its obligations under the contract. By entering into OTC hedge contracts, market participants are essentially replacing their exposure to market risk by an exposure to the risk of their counterparties defaulting on their obligations under the contracts. Credit risk can sometimes be referred to as counterparty risk.

Participants have indicated they continuously assess the creditworthiness of their counterparties. In doing so, most participants appear to rely on a combination of their own desk top analysis into a counterparty’s financial position and ratings from the major credit rating agencies, such as Standard & Poor’s or Moody’s, where they are available.

Participants generally use maximum counterparty credit limits to determine which level of exposure is appropriate for each counterparty, depending on a counterparty's creditworthiness. It also appears to be common among participants to halt or reduce trading with a particular counterparty when that counterparty’s creditworthiness reduces.

Further, most participants appear to have policies in place to actively diversify the number of counterparties they have, in order to reduce risk from exposure to a single counterparty or a small number of counterparties.[21]

2.2.4 Cash flow risk

Cash flow risk is the risk that a company's available cash will not be sufficient to meet its financial obligations. An example would be meeting margin calls for ASX 24 traded

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19 AFMA, *2014 Australian Financial Markets Report*, pp. 2,57.

20 AER, *State of the Energy Market 2014*, 19 December 2014, p124.

21 ASIC, *Review of OTC electricity derivatives market participants' risk management policies* - Report 390, April 2014, p21.

contracts. Cash flow risk may arise or may be increased as the result of a misalignment in time or in magnitude between payments received and payments due.

Cash flow risk is differentiated from market liquidity risk. Market liquidity risk arises when there are an insufficient number of parties actively participating in a given market to support willing buyers and sellers transacting their products at acceptable prices or, under certain circumstances, at all.

A lack of market liquidity can magnify cash flow risk, as it could limit a participant's ability to sell assets to support its cash flow position.

2.3 How contagion could occur through financial interdependencies

2.3.1 Financial contagion

Financial contagion could occur when a number of market participants are not able to fund their financial liabilities and obligations resulting from the failure of another market participant in the required time. This could threaten financial system stability in the NEM. The likelihood of contagion occurring depends on:

- the nature and extent of the financial exposures of other participants to the failing participant in question. For other participants it will include whether they have hedge cover for their retail or generation loads;
- the magnitude and timing of any additional liabilities that may be incurred as a result of the failure of the failing participant (eg, payments for the consumption of customers transferred under retailer of last resort arrangements);
- how the market arrangements respond to a failure of a market participant; and
- the capacity of market participants to absorb additional liabilities, either through their own capital reserves or through accessing new sources of finance.

2.3.2 Exchange traded derivatives and spot market

The Commission considers that the contracts traded via the ASX 24 exchange do not create a significant risk of financial contagion in the event of counterparty default.

There is no direct relationship between generators and retailers when they buy and sell futures and options on the ASX 24, so there is no direct channel for financial distress of one of these parties to be transmitted to the other. With centralised trade clearing, exchanges effectively remove counterparty credit risk by becoming the seller to every buyer, and the buyer to every seller, to guarantee transactions. For example, a generator that sells a futures product is not exposed to the credit risk that it will not receive payments if a retailer defaults. Instead, that risk is transferred to ASX Clear (Futures), the clearing house operated by the ASX which acts as the central counterparty for all futures and options products traded on the ASX 24. The creditworthiness of the clearing house itself then becomes an important issue.

The ASX manages this credit risk by assessing the credit risk of each individual participant and assigning a credit obligation commensurate to the perceived level of counterparty risk. Accordingly, the ASX requires anyone that trades on the ASX 24 to provide a specified amount of money as an 'initial margin', to act as credit support in the event of a failure to pay. The ASX also calculates 'variation margins' based on daily price movements. A party that purchases futures or options will be required to pay these variation margins each day, or be entitled to receive a variation margin payment, depending on daily price changes. The ASX requires that all member firms meet their fiduciary responsibilities and capitalisation requirements.

Similarly, the Commission considers that the settlements process does not give rise to a significant risk of financial contagion in the event of payment default. As explained in section 2.2.1, the NER contains obligations on market participants to protect against any shortfall in wholesale market payments.

AEMO administers mechanisms that minimise the risk of financial contagion originating in the settlements process. In the most extreme scenario, where a participant falls outside of the 2 per cent NEM prudential standard, a shortfall could occur in the settlement process even where a participant's prudentials are taken into account. AEMO would subsequently pass on a pro rata short payment to all generators. Therefore, the risks of a payment shortfall for generators in the spot market and the potential for subsequent payment defaults and financial contagion are limited.

2.3.3 Contagion through the OTC contract market

A key channel of financial interconnectedness between market participants is the use of OTC derivative contracts. These contracts are central to the management of market risk. At the same time, they may act to transmit financial distress from one participant to another, if a counterparty defaults on the payments due under a contract. As explained in section 2.2.3, this is referred to as credit or counterparty risk.

The impact of a counterparty defaulting includes both direct losses and secondary effects:

- Direct losses relate to the loss of payments under the contract and also the cost of replacing those contracts. The magnitude of a loss of payment would depend on the settlement periods for OTC contracts, which tend to be around 4-5 weeks in arrears, and also on the probability of the participant receiving the termination payout from the administrators of the defaulting participant. The costs of replacing failed contracts would be incurred over the duration of those contracts. Hence, counterparty default might not cause immediate contagion as the costs of replacing contracts could be spread out over the duration of the initial contract.[22]

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22 The Commission notes however, that, under accountancy standard AASB 139, the non-defaulting counterparty may be required to immediately write off the total value of the loss. This may then cause the business to breach its debt covenants with banks, which in turn could cause the company's default, leading to contagion.

- Secondary effects relate to how default by an individual market participant could affect both market conditions (such as the spot price or the availability of generation) and also the creditworthiness of other participants. During the GFC, the impact of individual participants failing was exacerbated by uncertainty about which other businesses were in imminent danger of failing, causing a 'freeze' in liquidity and financing.

If the affected market participant does not have adequate reserves, or ability to attract short term finance, these additional short term cost pressures could place substantial financial pressures on the participant. If the participant is able to ride out the costs pressures, it should be able to remain viable as long as it can recover those additional costs from its customer base.

Participants in the NEM often, but not always, exchange collateral for OTC transactions as a safeguard in case a counterparty defaults on its obligations.[23] Some participants have indicated they may require provision of credit support (for example, a parent group guarantee or bank guarantees) or collateral before entering into an agreement with a counterparty they consider to be of lower creditworthiness. Reasons raised by participants for not requiring collateral include:

- a number of generators are owned by governments;
- OTC electricity contracts of a long duration may not be suitable for margining and could lead to a very high cost for collateralisation;
- OTC electricity contracts are underpinned by either a retail load or generation asset; and
- requiring collateralisation may negatively affect the liquidity in the market, since it would place additional demands on scarce capital.

Instead, participants advised that credit risk is managed through restricting maturity limits and transaction sizes with entities depending on their creditworthiness. The risk of financial contagion occurring through OTC contracts depends on participant risk management practices and the robustness of participants' reserves to absorb such losses. These issues are discussed further in Chapter 4.

Box 2.1 presents a case study of how financial contagion could be transmitted through OTC contracts.

23 Most market participants required credit support when credit limits or thresholds had been or were about to be reached. More than half of the market participants surveyed by ASIC documented this in an ISDA master agreement with a credit support annex. See ASIC, *Review of OTC electricity derivatives market participants' risk management policies* - Report 390, April 2014, pp. 21-22).

Box 2.1: Example of contagion through OTC contracts: Constellation Energy in the US

Constellation Energy Group (Constellation) was one of the largest diversified vertically integrated energy companies in the United States prior to 2008. Constellation had over 35 power stations across 11 states with customers in regions around Maryland, Pennsylvania, New York and West Virginia within its portfolio. It had generation capacity of over 9100 MW, of which 4100 MW was nuclear capacity and the remaining 5000 MW was coal, gas & hydro. The two most prominent shareholders in Constellation were French electricity utility EDF (9.5 per cent) and Lehman Brothers (5.3 per cent).

The nature of the inter-linkage between Lehman Brothers, EDF and Constellation facilitated the spread of systemic risk from prevailing macro-economic events in financial markets into the energy market across North America. The financial interdependencies between Lehman Brothers and Constellation due to the contracting behaviour between these two businesses resulted in the near collapse of Constellation following the bankruptcy of Lehman in 2008. Constellation had to be saved initially through funding from Berkshire Hathaway and then through a corporate restructuring with a capital injection from its parent company, EDF.

The circumstances which contributed to the near collapse of Constellation and gave rise to systemic risk arose from the combination of the macro-economic financial events during the GFC in 2008 and the following three factors:

- the high prevalence of collateralisation of OTC contracts and the use of exchange traded futures in both electricity and gas markets across North America, which had the effect of translating credit risk into funding and liquidity risk;
- a highly leveraged investment bank, with Lehman Brother's actively trading in energy market derivatives with both energy companies and end use customers;
- a highly leveraged physical energy company, with excessively concentrated exposure to a single highly leveraged investment bank.

Prior to 2008, Lehman Brothers was aggressively expanding its trading activities using a wide range of structured derivatives across multiple product markets. In addition, unlike traditional banks, Lehman Brothers was actively holding significant equity in major energy companies across North America of which its largest shareholding was in Constellation. It also held debt with these companies. This allowed Lehman Brothers to have board representation and unusually high levels of influence on management decisions.

It is understood that Lehman Brothers was actively using a ‘credit wash’ strategy with energy market participants and specifically with Constellation. This was a strategy in which Lehman Brothers would enter into a fully back-to-back offsetting transaction between energy market participants with poor credit ratings and Constellation. This allowed Constellation to mitigate its credit risk exposure to poor credit counterparties but increased its concentration of credit risk to Lehman Brothers. The failure of Lehman Brothers resulted in Constellation facing a US$4 billion funding shortfall to support its ongoing operations.

The withdrawal of Lehman Brothers from the energy derivatives trading also caused a sudden liquidity crisis at a time when the energy market was experiencing severe market volatility. Additionally securing OTC contracts priced against exchange traded futures was cost prohibitive as credit lines had been severely curtailed. This increased the costs for Constellation. The tendency for many energy companies in the United States to be either highly leveraged or asset intensive meant that variation in credit premiums and funding and liquidity due to macro-economic events had a disproportionately large impact across the energy industry.

2.3.4 Stakeholder views

In response to the stage two options paper, market participants questioned whether financial contagion could occur through OTC contracts.

AGL considered that the risk of contagion in the NEM due to a counterparty default in OTC contracts is very low because the NEM is a very resilient and robust market. AGL noted that throughout its 15 year history, the NEM has withstood significant financial pressures as a result of droughts, substantial outages, record heatwaves and financial collapses. AGL stated that 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.[24]

Likewise, GDF SUEZ Australian Energy (GDFSAE) noted that despite a number of challenges, there has been no instance in which contagion has led to counterparties being adversely impacted to any serious extent. GDFSAE advised that this track record should give market participants and regulators confidence in the robust nature of the NEM.[25]

Origin noted that offsetting the cost of spot market or hedge contract purchases is the ability of retailers to pass wholesale energy costs through to consumers. Origin considered that the replacement costs for OTC contracts following a counterparty default are likely to be managed by participants without the risk of contagion. The wholesale cost component of regulated tariffs are determined annually, so Origin

24 Submission by AGL to the stage two options paper, 18 December 2013, p1.

25 Submission by GDFSAE to the stage two options paper, 19 November 2013, p4.

considers that higher wholesale purchase costs could be passed on to mass market customers on both regulated and market contracts in a reasonable timeframe.[26]

Market participants also referenced analysis provided by Seed Advisory as part of the Energy Supply Association of Australia (ESAA) submission to the stage two options paper.[27] Seed Advisory's analysis is discussed further in the next section.

In response to the discussion in the Commission's second interim report on the risks of financial interdependencies between NEM participants, stakeholders reinforced the arguments made in submissions to the stage two options paper discussed above. AFMA emphasised that the likelihood of financial contagion was remote.[28] Stakeholders were concerned that the second interim report overstated the risks of OTC contracting compared with the risks of spot and futures trading, and understated the benefits of using OTCs as a risk management tool.[29] Alinta noted that the interactions between participants in the NEM creates both risks and rewards, and that risk management practices by NEM participants are sound.[30]

2.4 Seed Advisory estimates of counterparty default

The ESAA submission to the stage two options paper included analysis from Seed Advisory on the extent of systemic risk in the electricity OTC derivative market.[31] The purpose of this analysis was to consider whether the proposed G20 reforms to require trade reporting for OTC contracts and higher margin requirements for non-centrally cleared OTC derivatives were appropriate for the NEM.

2.4.1 Seed Advisory modelling approach

Using actual data from seven large market participants, Seed Advisory modelled the potential costs faced by a typical vertically integrated retailer and a stand-alone generator in the event of two separate scenarios:

- the failure of the derivative counterparty that a participant had the largest position with (by volume in MW); and
- the failure of the derivative counterparty that a participant had an average size position with (by volume in MW).

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26 Submission by Origin Energy to the stage two options paper, 19 November 2013, p7.

27 Seed Advisory, *NEM Financial Resilience - Report for the Private Generators Group, the National Generators Forum and the Energy Supply Association of Australia*, 14 August 2013.

28 Submission to the second interim report by AFMA, 3 October 2014, p2.

29 Submissions to the second interim report by AFMA, 3 October 2014, pp1-2; Alinta, 23 September 2014, pp1-2; EnergyAustralia, 3 October 2014, pp3-4.

30 Submission to the second interim report by Alinta, 23 September 2014, pp1-2.

31 Seed Advisory, *NEM Financial Resilience - Report for the Private Generators Group, the National Generators Forum and the Energy Supply Association of Australia*, 14 August 2013.

Seed Advisory's analysis calculated both the immediate settlement loss cost of OTC default, and the cost of managing wholesale purchases over the remainder of the term of the defaulted contracts (either through the replacement of the defaulted contracts or through increased exposure to wholesale spot prices). They found that the majority of costs were attributable to the latter category - immediate settlement issues were much smaller than the future costs attributable to replacing the defaulted contracts. These costs only crystallised over the remaining contract period following the initial default.

2.4.2 Seed Advisory modelling results and conclusions

The largest total loss modelled by Seed Advisory for a vertically integrated retailer occurred where the retailer lost contracts with its largest counterparty and then locked in replacement contracts at unfavourable market prices for the total term of the contracts now in default. Under these conditions, the total loss was estimated to be $630 million, of which $140 million represented the settlement losses, which require access to cash over the immediate and very short term (a 5 week period). Seed Advisory concluded that this estimated immediate loss should pose no funding issues and, hence, a low risk of contagion based on the reported cash flows of the large vertically integrated retailers.[32]

The comparable total loss figure for a stand-alone generator was $115 million, of which $10 million represented the settlement losses to be incurred over the initial 5 week period.

Extrapolating the estimates to all participants in the NEM, Seed Advisory estimated that the short term funding requirement for the market could range from $200 million to $560 million, spread over a number of counterparties. Looking at the 2011-12 turnover in the NEM of around $6 billion, at its maximum this represents just under 10 per cent of total annual turnover. In Seed Advisory's view, this is unlikely to represent an immediate risk to system stability.

Seed Advisory considered that the greater loss to participants comes from the cost of having to manage future wholesale purchase costs either by acquiring potentially more expensive contracts or purchasing from the spot market. This loss was between $200 million and $490 million over two years. Seed Advisory commented that such a loss over a period of two plus years is unlikely to result in immediate failures, but noted that a loss of this size could affect shareholder valuations across the sector generally, resulting in a reduction in loans to the sector and, potentially, pressure on loan covenants and the orderly disposal of assets.

The comparable loss figures for a stand-alone generator were between $95 million and $105 million.

Based on the data provided, Seed Advisory found that the exposures for average counterparties were materially smaller than for a large counterparty. The average

32 Ibid, p6.

settlement loss, based on data provided by participants, was $15 million for a vertically integrated market participant, and $2 million for a stand-alone generator.

Seed Advisory concluded that the failure of the largest counterparty of a vertically integrated retailer would be unlikely to cause financial contagion and threaten financial system stability in the NEM. This is based on the currently reported profits and turnovers of the vertically integrated retailers.[33]

Seed Advisory's modelling results are summarised in table 2.1.[34]

Table 2.1 Seed Advisory modelling of OTC counterparty default costs ($ million)

Estimate impact of OTC counterparty default for vertically integrated retailer		
cost	Largest counterparty default $million	Average counterparty default $million
Settlement amount not received	140	15
a) Exposure to spot price; or	230	10
b) Replacement of contracts	490	70
Estimated total loss	370 to 630	25 to 85
Estimate impact of OTC counterparty default for stand-alone generator		
Settlement amount not received	10	2
a) Exposure to spot price; or	15	3
b) Replacement of contract	105	25
Estimated total loss	25 to 115	5 to 27

33 NEM turnover or participants annual cash flows may not be the correct parameters to use to assess a participant's ability to absorb financial losses. The capital reserves and available cash, liquid assets, and ability to access finance are likely be more crucial determinants in whether the business can immediately survive a counterparty default. Therefore, it could be health of the participant's balance sheet, and not so much the size of the balance sheet which would determine the risk of contagion.

34 Seed Advisory, *NEM Financial Resilience - Report for the Private Generators Group, the National Generators Forum and the Energy Supply Association of Australia*, 14 August 2013, p4.

2.5 Commission's considerations and conclusions

Seed Advisory's modelling was focussed on the G20 reforms. The Commission's considerations regarding the proposed G20 reforms are contained in chapter 11.

Seed Advisory's modelling is also useful for understanding the materiality of the risks to system stability in the NEM and this section discusses the Commission's considerations in this regard. From Seed Advisory's work:

- The magnitude of liabilities experienced by participants and, therefore, the risk of contagion occurring would differ depending on whether it is a generator or a retail business that experiences OTC counterparty default. Generally, a generator experiencing counterparty failure would not face as severe financial consequences as a retailer, largely due to the highly asymmetric distribution of spot prices. Retailers could be exposed to purchasing electricity for their customers at spot prices as high as the market price cap of $13,500/MWh. Generators would only forego contract difference payments down to the market price floor of -$1,000/MWh.

- The majority of costs associated with OTC contract default related to the costs associated with replacing the contracts, and not to the immediate settlement loss associated with the contracts. Counterparty default might not cause immediate contagion as the costs of replacing contracts could be spread out over the time of the initial contract. In addition, margining requirements for OTC contracts would not contain this replacement cost.

Given the indication of the potential magnitude of the financial impacts of default in OTC contracts modelled, Seed Advisory suggested that, in most cases, market participants would be able to manage a default of an OTC counterparty.

Whether or not a participant could withstand the failure of its largest counterparty would depend on a wide range of variables, and the conclusions of Seed Advisory's analysis are consistent with this. These variables include:

- whether the participant holds sufficient capital reserves to absorb the impact of financial shocks;

- the ability of the participant to source additional funding to manage any short term cash flow impacts;

- the participant's internal finance thresholds (eg, debt covenants, margin ratios) or external reserves obligations. Settlement losses from OTC counterparty default could trigger financial covenants and obligations, causing additional financial distress for the participant;

- whether the default coincides with other unfavourable events occurring. For example, high spot prices together with generation plant outages and a squeeze on the general availability of credit, would magnify the impacts of a counterparty default. Such events tend to be unexpected and not reflective of normal market conditions;

- the degree of concentration of hedge contracts between participants. Where there are fewer participants, the concentrations of hedge contracts held by each participant would likely be higher and the impacts of the counterparty default could be more severe; and

- the hedging strategies adopted by market participants, such as the percentage of retail load or generation capacity which is hedged.

While the likelihood is uncertain, financial contagion could occur through OTC contract counterparty default. Whether or not this would occur, and to what extent, would depend on a broad range of variables and the unique circumstances of individual market participants at the time. Therefore, while the Commission acknowledges that there will always be a degree of risk involved in electricity trading and that this risk can never be entirely removed, the Commission considers OTC counterparty default is more likely to lead to financial instability in the NEM than spot market or exchange trading. This is because for the spot market and exchange traded derivatives, regulatory and compliance arrangements are in place to limit the impacts of settlement shortfall and counterparty default, while impacts associated with OTC counterparty defaults are dependent on the circumstances and practices of individual participants.

3 Financial stability in the NEM and the retailer of last resort scheme

The retailer of last resort (ROLR) scheme applies when a retailer is suspended from the NEM. This scheme is intended to enable continued power supply and retail services to the failed retailer's customers, provide for the orderly transfer of affected customers to the ROLR(s), and preserve the integrity of the settlement of the spot market.

If a large retailer experiences financial distress and triggers the ROLR scheme in its current form, NEM financial system stability could be threatened. This is because the ROLR(s) would need to meet additional financial obligations associated with the acquisition of the failed retailer's customers in a very short timeframe. If these obligations cannot be met by the ROLR(s), further failures may occur.

The key challenges for a ROLR are:

- **Cash flow risk,** where the ROLR is not able to meet payment obligations due to a mismatch between the timing of money received and payments due. Retailers commonly invoice residential customers every quarter in arrears, but would be incurring the costs of purchasing electricity for the transferred customers during those three months; and
- **Additional credit support** in relation to the acquired customers, which must be provided to AEMO and may be required by distribution network service providers (DNSPs).

In a scenario where the failed retailer accounts for 20 per cent of NEM market share, high price market conditions exist, and the failed retailer’s load is split between two ROLRs, it is estimated that the ROLRs would collectively need to organise additional credit support of $672 million to AEMO; up to $420 million of additional credit support to DNSPs; and fund an extra $42 million in wholesale market payments each week. The magnitude of such additional financial obligations could trigger further failures.

In addition, there are likely to be information and systems challenges involved in transferring large numbers of customers. If customer information is not transferred efficiently from the failed retailer to the ROLR, it would inhibit the ROLR's ability to hedge the new load since it would have incomplete information about load characteristics. It would also make it difficult to establish effective customer communication and billing arrangements.

This chapter sets out the Commission's analysis and conclusions on the consequences for financial system stability in the NEM from the application of the current ROLR scheme. It explains how this scheme could act to transmit financial contagion, and threaten NEM financial system stability. It includes estimates of the financial implications on other market participants following the suspension from the market of a participant with a large retail load.

The Commission's analysis and final recommendations have been developed using the ROLR scheme included in the National Energy Customer Framework (NECF). The NECF has not been adopted in all jurisdictions. New South Wales, South Australia, Tasmania, ACT have all already adopted the NECF and Queensland is scheduled to adopt the NECF on 1 July 2015.

The ROLR scheme in the NECF applies to both electricity and gas. While the Commission has been asked to consider the impacts of financial system instability in the NEM, a retailer failure is likely to trigger similar issues to those outlined below for gas markets. Further, as a number of retailers have both electricity and gas customers, a retailer failure may create financial system instability across both electricity and gas markets. The Commission's recommended changes to the ROLR scheme are set out in Chapter 8. As discussed in Chapter 8, the Commission recommends that the COAG Energy Council considers the extension of these changes to a retailer failure in gas markets to provide for a simpler and more comprehensive implementation of these recommendations.

3.1 Operation of the ROLR scheme

The ROLR scheme applies when a retailer is suspended from the NEM. This scheme is intended to enable continued supply and services to the failed retailer's customers, provide for the orderly transfer of affected customers to the ROLR, and preserve the integrity of the settlement of the spot market. Under this scheme, the customers of a retailer who is suspended from the NEM would be transferred to one or more other retailers, referred to in the NERL as the 'designated ROLRs'. Box 3.1 outlines how the ROLR scheme operates under the NERL.

Box 3.1: The retailer of last resort scheme under the NERL

The NERL requires a "default ROLR" to be appointed by the AER for all electricity connection points. The AER may also appoint "additional ROLRs" in an area. When a ROLR event is triggered, the default ROLR will be appointed as the "designated ROLR" unless the AER provides AEMO with written notice before the ROLR event occurs, appointing another retailer instead. In this report, the term ROLR is used for simplicity.

Retailers can submit an expression of interest to the AER to become an additional ROLR. The AER has established two categories of additional ROLRs - a "firm offer" category where retailers pre-commit to the terms and conditions under which they would be appointed as a ROLR, and a "non-firm" category where retailers register their interest in being a ROLR but they are not committed to acting in that role.

The designated ROLR is responsible for taking on new customers and facilitating customer transfers from the failed retailer. The AER can appoint more than one retailer as a designated ROLR in any area. If it does so, the customers of the failed retailer will be allocated between the designated ROLRs.

For small customers, a "ROLR deemed small customer arrangement" is taken to apply between the designated ROLR and the small customer. The terms and conditions of this contract are those of the designated ROLR's standard retail contract. The prices are the ROLR's standing offer prices, with any variation in accordance with the ROLR cost recovery scheme.

For large customers, the terms and conditions of the "ROLR deemed large contract arrangement" are the terms and conditions published by the designated ROLR on its website, which must be fair and reasonable.

A designated ROLR may apply to the AER to recover certain costs related to the ROLR scheme. Default ROLRs may apply to recover their costs to prepare for a potential ROLR event and designated ROLRs may apply to recover their costs associated with an actual ROLR event.

3.2 Key factors leading to a cascading retailer failure

The application of the ROLR scheme in its current form could cause financial contagion if the failed retailer had a substantial retail load. This is because of the immediate and substantial financial obligations imposed on the ROLR following the transfer of the failed retailer's customers. When acquiring the additional customers and their load, the ROLR(s):

- are required to provide increased credit support within a couple of days to AEMO to cover the potential spot market energy costs of the acquired customers;
- may be required to provide increased credit support to DNSPs to cover network charges in relation to the acquired customers;
- would likely need to obtain additional hedge cover to reduce exposure to the spot price for the load of the acquired customers;
- could face considerable increased wholesale energy costs, particularly if a retailer failure occurred at a time of high spot prices;
- could be constrained in its ability to pass these increased costs on to customers due to retail price regulation or competitive pressures; and
- would be constrained by the significant timing gap between when the ROLR has to meet these obligations and when the ROLR is able to recover such costs.

Where a small retailer fails, these obligations may be absorbed relatively easily by the ROLR. In addition, the ROLR obtains longer term benefits from expanding its customer base without having to pay to acquire the additional customers.

If the ROLR is unable to meet its increased costs and credit support obligations, it may also be suspended from the NEM. This could trigger a "cascading retailer failure", as other retailers would be appointed as ROLRs and may fail for the same reasons. In these circumstances, it is possible that there may be no retailer that can effectively perform the role of designated ROLR.

3.3 Stakeholder views

From the commencement of this review, market participants have agreed that the existing ROLR scheme could contribute to the risk of financial contagion in the NEM.

EnergyAustralia noted that this could occur by imposing upfront costs on the ROLR.[35] Both AEMO and the AER also agreed that the ROLR scheme could exacerbate the risk of financial contagion. AEMO considered that the ROLR is unlikely to capable of managing either the failure of a participant with a very large customer base, or the failure of a participant with generation assets as well as customers in its portfolio. AEMO considered that alternative mechanisms beside ROLR need to be developed to manage such situations.[36] The AER raised a concern about the effects on retail competition through changes to market structure if the ROLR scheme transferred a large retailer's customers to other large retailers. The AER saw merit in exploring arrangements to support or supplant the ROLR processes in the event of a large retailer failure.[37]

3.4 Implications of the suspension of a large retailer from the NEM

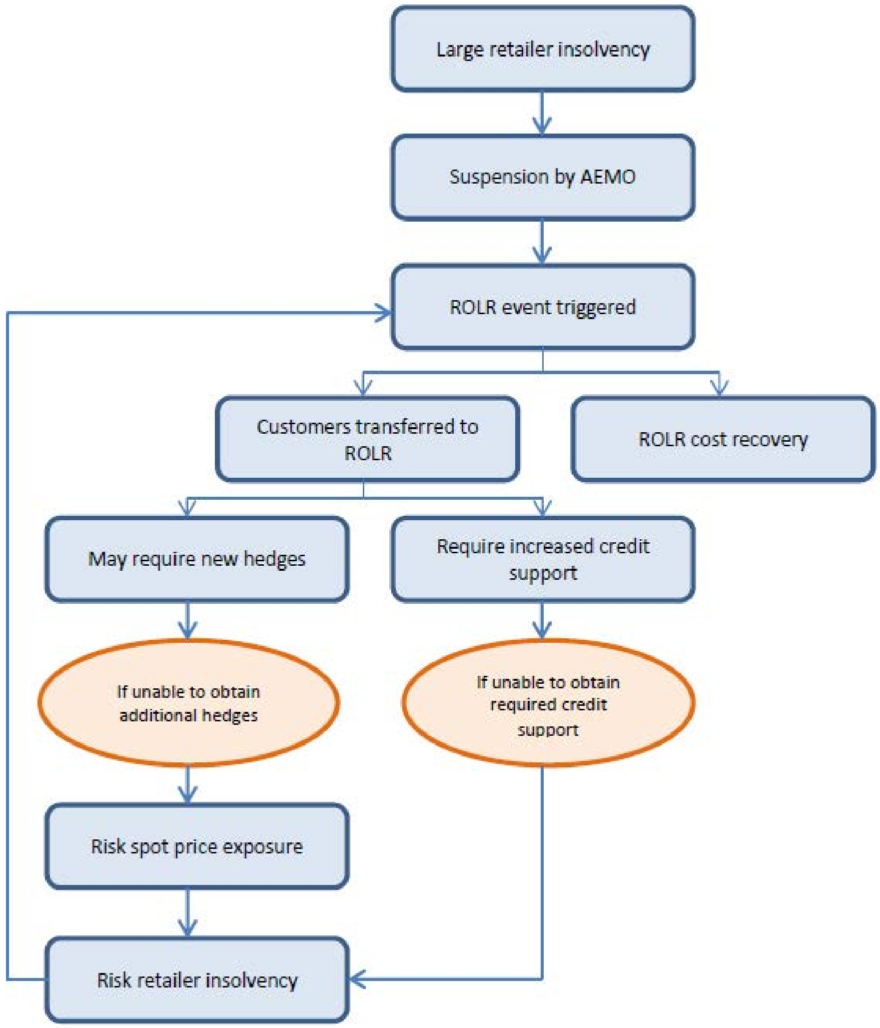
This section steps through the various financial implications of a large retailer suspension from the market and provides the results of some indicative modelling of the magnitude of these implications for the ROLRs in a range of scenarios. These implications are illustrated in figure 3.1 and the key issues are explained below.

35 Submission to the second interim report by EnergyAustralia, 3 October 2014, pp1,4.

36 Submission to the NEM Financial Market Resilience Options Paper by AEMO, 20 March 2013, p2; Submission to the second interim report by AEMO, 21 October 2014, p1.

37 Submission to the NEM Financial Market Resilience Issues Paper by AER, 31 July 2012, p3; Submission to the second interim report by AER, 25 September 2014, p1.

Figure 3.1 Potential effects of a large retailer insolvency



3.4.1 Modelling scenarios

Some modelling was undertaken to understand the materiality of the failure of a large retailer. The credit support implications and the wholesale energy purchase costs for the ROLR(s) were considered under a number of scenarios reflecting different market shares of both the failing retailer and the ROLRs. This was carried out for both normal and high price conditions, with the high price conditions based on market outcomes during the 2007 drought. Further details on the modelling assumptions are set out in Appendix C.

The Commission's estimates are not comparable to the modelling results provided by Seed Advisory and presented in the previous chapter as the assumptions and methodologies are different.

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 per cent and the equal allocation of that retailer's customers to two other retailers also with original market shares of 20 per cent 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 ROLRs' customer loads of approximately 50 per cent, with each of the ROLRs having a 30 per cent market share following the ROLR event.

- **Scenario 2:** Failure of a retailer with a market share of consumption across the NEM and in each region of 30 per cent and the equal allocation of that retailer's customers to two other retailers with original market shares of 15 per cent each. All other retailers are assumed to be smaller. This would represent a notional doubling in the size of the two ROLRs' customer loads, with each ROLR having a 30 per cent market share following the ROLR event.

- **Scenario 3:** Failure of a retailer with a market share of consumption across the NEM and in each region of 30 per cent and the entire allocation of that retailer's customers to one other retailer with an original market share of 15 per cent. All other retailers are assumed to be smaller. This would represent a notional tripling in the size of the ROLR's customer load, with the ROLR having a 45 per cent market share following the ROLR event.

Under all scenarios, the Standard & Poor's credit rating of the two ROLRs was assumed to be 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).

These scenarios are not intended to reflect the actual market shares of any NEM retailers. In some respects, the market shares will not adequately capture the dominance of a retailer in a particular region. For example, AGL in South Australia has a retail market share of well over 30 per cent.

In the current market structure, the majority of large market participants have a mixture of both retail and generation portfolios. Financial implications for other participants across both the retail and generation sectors have not been modelled.

3.4.2 AEMO credit support requirements

Potentially the most significant and immediate impact on the ROLR would be the need to provide additional credit support to AEMO due to its increased customer demand.[38]

Table 3.1 Impact on AEMO minimum collateral requirements for each ROLR

Scenario	Pre-failure MCL requirements - normal prices	Post failure MCL requirements - normal prices	Pre-failure MCL requirements - high prices	Post failure MCL requirements - high prices
Scenario 1: ROLRs' market share increases from 20% to 30%	$196 million	$294 million	$672 million	$1008 million
Scenario 2: ROLRs' market share increases from 15% to 30%	$147 million	$294 million	$504 million	$1008 million
Scenario 3: ROLR market share increases from 15% to 45%	$147 million	$441 million	$504 million	$1512 million

Under scenario 1, the additional credit support each ROLR could be required to provide to AEMO would increase by between $98 million (under normal conditions with an average price of $35/MWh) and $336 million (under high price conditions with an average price of $60/MWh). This amount increases to $812 million if the default is a trigger for spot prices to change from normal conditions to a period of increased high prices.

Under scenario 3, the additional credit support required to be provided by the ROLR to AEMO is substantially higher and would range between $294 million (under normal conditions) and over $1 billion (under high price conditions).

If the ROLR did not provide additional credit support to reflect its increased minimum collateral requirement, AEMO would issue a default notice. The ROLR would then be required to provide substantial additional credit support within one day. If the ROLR fails to provide the additional credit support within the required timeframe, AEMO would be expected to suspend it from the NEM. A retailer that has been suspended from the NEM would not be able to continue to trade and insolvency would almost certainly follow.

38 See section 2.2.1 for further detail on how credit support for participants to AEMO is calculated..

The ability to obtain this credit support, and the cost of doing so, would be subject to the prevailing market conditions and the attitude of the financial sector towards risks in the NEM. In adverse market conditions, credit support providers may be reluctant to provide additional support. Accordingly, obtaining this credit support is likely to be a critical challenge for any retailer that is appointed as a ROLR in the event of a large retailer failure.

3.4.3 DNSP credit support requirements

Chapter 6B of the NER sets out the terms of the DNSP credit support that retailers are obliged to provide. The purpose of DNSP credit support arrangements is to manage the risk of non-payment of network charges. These provisions supersede the previous jurisdiction-based schemes and apply as part of the NECF.[39]

Under Chapter 6B, the amount of credit support a retailer is required to provide to a DNSP is determined by a formula. The formula begins with the specification of the maximum credit allowance for each DNSP. This is the amount of credit (in dollar terms) that would be allowed to a retailer with a credit rating of A- or better before it must provide credit support. Presently, a DNSP's maximum credit allowance is set to 25 per cent of its total annual network charges billed to all retailers.

An individual retailer's credit allowance with respect to each DNSP is calculated as a percentage of the relevant DNSP's maximum credit allowance, with that percentage based on the retailer's credit rating.[40] In general, the credit allowance percentage reflects the ratio between the probability of default for the retailer based on its own assigned rating and the probability of default for an A- rated company.[41] A retailer must provide credit support if its network charges liability exceeds its credit allowance.

The modelling presented in the second interim report represented a stylised upper bound of the DNSP credit support that a ROLR would need to provide. The assumptions made maximised the network charges liability that would be attributed to a ROLR and therefore the credit support that it would have to provide. For example, the customers transferred to the ROLR(s) were all assumed to be residential customers on a 90-day meter reading cycle. This approach was taken to understand the largest likely DNSP credit support obligations a ROLR might reasonably face in circumstances of a large retailer failure. A more frequent meter reading and billing cycle would reduce the amount of network charges that are outstanding at any point in time and therefore, all else being equal, would reduce the required credit support.

Network businesses raised concerns with the approach taken in their submissions to the second interim report. The NSW distribution businesses and the Energy Networks Association submitted that the modelling appeared to be based on unsupported

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39 In those jurisdictions that have adopted the NECF.

40 See Schedule 6B.1 of the NER..

41 Further explanation of the DNSP credit support formula and modelling results are set out in the report from Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014.

assumptions regarding billing cycles.[42] In subsequent discussions with AEMC staff, representatives from the distribution businesses explained that they were concerned that the approach could overstate the credit support that a ROLR would have to provide. They suggested that the recommendation in the second interim report to defer the requirement for ROLRs to provide DNSPs with credit support could therefore be based on an overestimation of the impacts of DNSP credit support obligations on a ROLR.

This report updates the modelling presented in the second interim report in two ways. Firstly, the results reflect more recent DNSP annual revenue data provided by the AER. As current DNSP revenues are substantially higher than the approximate averaged amounts applied in the second interim report, this has the effect of raising retailers' credit outstanding amounts and thereby increasing the likelihood and extent of their obligations to provide credit support.

Secondly, to provide a lower bound estimate of the DNSP credit support that a ROLR might have to provide in circumstances of a large retailer failure, the parameters used have been revised to reflect a broader range of meter reading and billing cycles. It is assumed that:

- the failed retailer serves a mix of customers, whose meters are either read monthly or quarterly rather than all quarterly;
- some retailers are billed weekly rather than monthly, reducing the average retailer billing period; and
- retailers might only have 20 days to pay their DNSP invoices, rather than 30 days.

The combined effect of these assumptions is to reduce the average number of days for which a retailer's network charges are outstanding from 90 to 65 days.

In Table 3.2 below, the first column sets out the results based on 65 days of network charges outstanding and the latest DNSP revenue data. The second column sets out modelling based on 90 days of network charges outstanding consistent with the approach used in the second interim report, but has been updated to reflect the latest DNSP revenue data. As discussed above, due to the increase in DNSP revenues, the modelled credit support required is slightly higher than that presented in the second interim report. Please see Appendix C for further detail on the modelling assumptions.

42 Submissions to the second interim report by the NSW DNSPs, 25 September 2014, p. 2; Energy Networks Association, 25 September, p. 2

Table 3.2 Impact on DNSP credit support requirement for each ROLR

Scenario	Increase in DNSP credit support	
	65 days' network charges outstanding	90 days' network charges outstanding
Scenario 1: ROLRs' NEM market share increases from 20% to 30%	$0	$210 million
Scenario 2: ROLRs' NEM market share increases from 15% to 30%	$0	$210 million
Scenario 3: ROLR NEM market share increases from 15% to 45%	$278 million	$619 million

The modelling demonstrates that in all scenarios, none of the ROLRs would have been providing any credit support to the DNSP prior to the large retailer failure (while their market share was either 20% or 15%). However, following the large retailer failure, the ROLRs would need to provide credit support to DNSPs in all three scenarios under the 90 days assumption. Under the 65 days assumption, the ROLR would be required to provide DNSP credit support only under scenario 3. The credit support would need to be provided within ten business days of a request from the DNSP.

The modelling does not attempt to accurately estimate the DNSP credit support that a ROLR would have to provide. The amount of required credit support would depend on many factors, including the failed retailer and the ROLRs' market shares, the ROLRs' credit ratings and the customer and retailer billing cycles that pertain in a particular DNSP's area. These circumstances are likely to differ in every ROLR event and may differ by DNSP in the same event. Nevertheless, the modelling does give an indication of the magnitude of the possible impacts on the ROLRs of having to provide DNSP credit support.

Under all scenarios, prior to the failure of the retailer, the large retailer would have been the sole party providing DNSP credit support due to the size of its market share, and then only in scenarios 2 and 3 (90 days assumption). In scenarios where ROLRs have to provide credit support, the effect of the retailer failure would be to increase the total level of credit support provided to DNSPs. The sharing of the failed retailer's customers between one or two ROLRs would increase market concentration such that the ROLRs in combination would have to provide more credit support than the failed retailer had previously been providing. This occurs in all scenarios under the 90 days assumptions. Under the 65 days assumption, the ROLR would only need to provide credit support in scenario 3; the failed retailer would not have needed to provide any credit support under any of the scenarios using the 65 days assumption.[43]

3.4.4 Additional hedging requirements

The failure of a large market participant would affect other participants' hedging arrangements in two ways:

- the ROLR would likely be unhedged in relation to the acquired customers and would need to obtain additional hedge cover or be exposed to the spot price for the load of the acquired customers; and
- market participants would have to replace any OTC hedge contracts held with the failed retailer. This could also include the ROLR if it has any OTC contracts with that failed retailer.

Table 3.3 provides estimates of the increase in weekly settlement amounts for the ROLR(s) under the three scenarios.

Table 3.3 Impact on weekly settlement amount for each ROLR

	Increase in settlement under normal price conditions	Increase in settlement under high price conditions
Scenario 1: ROLRs' NEM market share increases from 20% to 30%	$12.25 million	$21 million
Scenario 2: ROLRs' NEM market share increases from 15% to 30%	$18.4 million	$31.5 million
Scenario 3: ROLR NEM market share increases from 15% to 45%	$36.75 million	$63 million

The modelling shows that the ROLR may be required to fund up to $63 million extra a week to cover the energy costs of the acquired customers. The ROLR would have to fund this either through its own existing working capital, financial provisions, or organise finance in the interim before it could pass through these costs onto customers.

Obtaining additional hedge cover for the extra customers would provide protection for the ROLR against the high spot prices. However, the ROLR would still need to fund the cost of those hedges, which is estimated to be roughly equivalent to the estimated settlement spot price. Therefore, under normal conditions, each ROLR would be

43 The DNSP credit support obligations under chapter 6B of the NER effectively create a threshold market share, which varies with a retailer's credit rating, below which a retailer is not required to provide credit support. The arrangements were deliberately designed to favour small retailers in

required to fund $12.25 million a week under scenario 1 for a period of time until it is able to recover that cost from invoicing the ROLR customers. Given that NEM settlement takes place four weeks after the trading day, there could be sufficient time for the ROLR to have in place the increased funding arrangements to be able to purchase energy for the customers transferred under the ROLR scheme.

It is difficult to assess whether the ROLR would also suffer costs associated with that participant defaulting on its hedge contracts. This would depend on the extent to which retailers are exposed to one another through the OTC contract market. Given that large retailers tend to have generation assets, under the modelled scenarios it is likely that the ROLRs would have had hedge contracts with the failed retailer that they would need to replace.

3.5 Commission's considerations and conclusions

Additional financial burdens on ROLRs from the transfer of large volumes of customer would be substantial. This could result in the ROLR(s) subsequently failing. Potentially, this could lead to a cascading failure of multiple retailers.

The ROLR would need to make additional purchases of electricity in the wholesale spot market to cover the inherited retail load. As wholesale market settlement occurs roughly four weeks in arrears, the ROLR would have to find the additional cash required for settlement within that time. If spot market prices were high, this burden could be compounded.

As the ROLR would increasingly enter into new hedge contracts to cover the additional load in the weeks and months following the ROLR event, the spot price exposure would gradually diminish.

The ROLR(s) would be required to provide additional credit support to AEMO and could be required to provide additional credit support to DNSPs. Under the current rules, this credit support is required within short timeframes. If the ROLR event occurs at a time when the financial market faces a degree of distress, it may be difficult to find sources of finance, or finance may be provided at a higher cost than under normal circumstances.

The ROLR(s), and also AEMO, need to have the capability to transfer a large number of customers within a short timeframe. This includes having in place, for example, appropriate software and billing systems. If customer information is not transferred efficiently from the failed retailer to the ROLR, it would inhibit the ROLR's ability to hedge the new load (since it would have incomplete information about load characteristics) and establish effective customer communication and billing arrangements.

order to diversify DNSPs’ retailer exposures and to promote retail competition. See MCE Bulletin 192.

3.6 The risk of financial system instability in the NEM

While the NEM has a good track record of dealing with financial distress, episodes of financial distress have occurred in other electricity markets and businesses can and do fail.

As discussed in Chapter 2, OTC contract counterparty default is more likely to lead to financial instability in the NEM than spot market or exchange trading. Whether or not this OTC counterparty default would lead to financial instability depends on a broad range of variables and the unique circumstances of individual market participants at the time.

The Commission considers that NEM financial system instability occurring via this channel would most likely materialise if it leads to the failure of a participant with a large retail load rather than a participant with significant generation capacity. This is because retailers could experience substantially larger losses than generators from OTC counterparty default. This is due to the asymmetric range of wholesale spot prices. Spot prices can range from the market floor price of -$1,000/MWh to the market price cap of $13,500/MWh. A retailer would suffer large losses if the OTC counterparty default occurred at the same time as high spot prices. A generator experiencing counterparty failure is less likely to suffer substantial financial losses as spot prices are seldom significantly negative and in any case cannot descend many thousands of dollars per MWh below typical contract strike prices. Also, generators are less likely to suffer substantial financial losses in a short timeframe from counterparty failure than retailers as they are able to sell their capacity at spot prices.

Further, the failure of a retailer could create risks to NEM financial system stability through the operation of the ROLR scheme. This is because of the significant financial challenges it would place on ROLRs when taking on large volumes of customers in a short period of time. If the ROLR is unable to meet its increased costs and credit support obligations it may also be suspended from the NEM, potentially triggering cascading retailer failure. This risk would occur regardless of the source of the retailer failure (whether emanating from OTC counterparty default or otherwise).

The Commission's conclusions are drawn having considered the most likely scenarios in the current industry structure.[44]

44 There is an alternative scenario in which a large generator defaults on its OTC contracts, triggering a number of small to medium retailers to fail. Collectively, these retailers may hold a significant share of the retail market load. This scenario would require, amongst other things, the following to occur: all the retailers would need to have a high level of exposure through their OTC contracts with the same large generator; and all the retailers’ financial positions at that time would need to be such that they could not absorb the losses associated with the counterparty failure, without also simultaneously failing. In such a scenario, the failure of a number of small to medium retailers could have implications for the NEM, depending on how many other retailers would be available to act as ROLRs and how the ROLR scheme was designed.

4 Assessment of current arrangements to identify and mitigate risks to financial stability in advance

There are arrangements in place that seek to identify and mitigate in advance risks to financial system stability in the NEM. The most important of these are market participants' risk management practices.

However, risk management practices cannot be solely relied on or expected to eliminate all risks to financial system stability in the NEM. Even with very diligent risk management by participants:

- a participant's incentives to manage risk carefully would not necessarily take account of the potential systemic consequences of its failure;
- the potential for participant failure to trigger financial contagion would depend on a wide range of factors and the circumstances at the time, all of which are difficult to quantify or judge in advance;
- risk management practices may not allow for the additional liabilities associated with becoming a ROLR under a large retailer failure situation;
- industry structure may limit the possibility for participants to adequately diversify potential risk among a wide number of counterparties; and
- it would be impossible for participants to have all the information needed to correctly assess the probability of counterparty failure under OTC contracts and the impacts of such a failure on their businesses.

Commercial attitudes may also change over time, and there is no guarantee that existing risk management practices will continue to be appropriate in the future.

A number of participants also maintain an Australian Financial Service Licence (AFSL). However requirements under the AFSL do not aim to preserve financial system stability in the NEM. Similarly, reporting requirements under accounting and auditing standards and under the NERL and NEL do not allow risks to financial system stability to be transparently assessed.

This chapter sets out the Commission's considerations regarding a number of arrangements that are in place to minimise the risks to NEM financial system occurring through counterparty defaults under OTC contracts. These arrangements include:

- risk management by market participants;
- external regulatory arrangements; and
- transparency and reporting obligations.

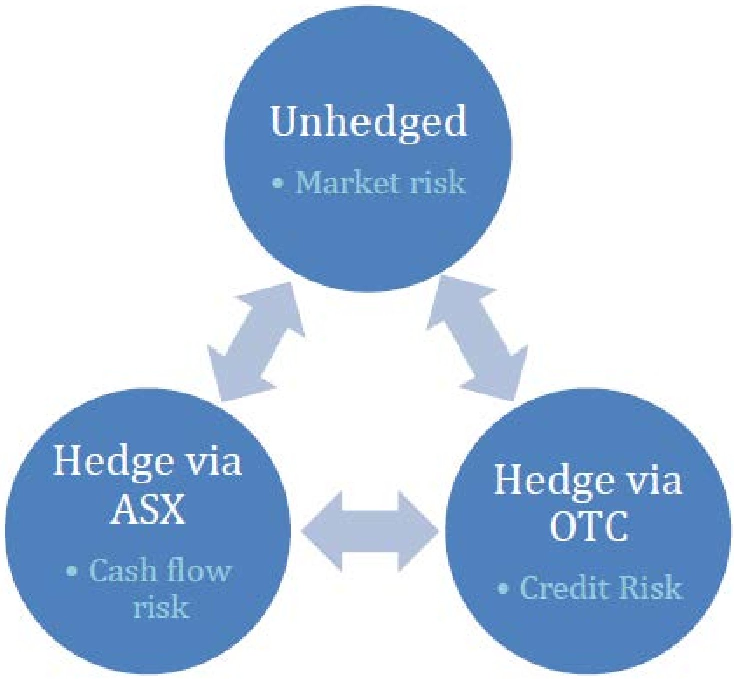
4.1 Internal risk management by market participants

4.1.1 Description

As outlined in Chapter 2, risk management in the NEM involves continuous trade-off decisions regarding the degree to which participants are willing to be exposed to the various sources of risk. For example, participants may use OTC contracts to manage market risk, but this increases their exposure to credit risk arising from the possibility of a counterparty defaulting on its obligations under the OTC contract. Some participants have stated that, of these risks, exposure to the spot price is the main risk that requires management.[45]

To illustrate the risk trade-off, GDFSAE provided the following diagram:

Figure 4.1 Risk trade-off



Taken from: submission by GDFSAE to the stage two options paper, 19 November 2013, p2.

Managing these risks is an integral part of a participant's day-to-day operations. Risk management is embedded in a framework both of internal policies and external risk management obligations. Risk management 'practices' includes documentation of procedures and policies, as well as how these procedures and policies are implemented.

45 Submissions to the stage two options paper by Alinta Energy, 18 December 2013, p3; ERM Power, 18 December 2013, p9; GDF Suez, 19 November 2013, p2; and Macquarie Generation, 20 December 2013, p3.

As part of this review, AEMC staff have engaged with participants to better understand their approaches to managing risk in the NEM. In discussions with AEMC staff, participants have argued that, because of the nature of risks in the NEM, they face strong commercial incentives to have adequate risk management practices in place to remain in business.

Participants' risk management strategies generally address risks faced by the organisation as a whole, not just risks related to activities in the NEM. Similarly, the inter-relationships between NEM participants - and their associated risks and exposures - may involve activities outside the electricity sector, in addition to their NEM activities (eg, gas supply).

In discussions with AEMC staff, participants:

- indicated they have internal risk management frameworks approved at board-level that determine overall risk management parameters. These parameters include the business's 'risk appetite', trading limits and counterparty credit limits.[46]
- explained that it is 'industry best practice' to segregate trading, middle office and back office functions within the company. The trading of financial products is undertaken by the front office, while the middle office ensures the control and processing of transactions. The back office conducts the administrative functions that support trading, such as record keeping, trade settlement and regulatory compliance.
- generally appear to manage their exposure to counterparties by restricting the size and duration of their transactions, depending on the creditworthiness of each counterparty. Participants also use regular valuation of their exposures and, to a lesser extent, periodic stress tests, to assess their risk positions. Also as noted in Chapter 2, participants are also managing risk internally, through vertical integration.

ASIC review of OTC electricity derivatives market participants risk management policies

ASIC has recently completed a review of the written risk management policies and related documentation of some Australian financial services licensed entities that deal or make a market in OTC electricity derivatives in Australia (market participants).[47]

Regarding the scope of the review, ASIC noted that:

> “Our review principally focussed on the content of written risk management policies and practices of the market participants surveyed. We therefore did not undertake a comprehensive survey of how each

46 Typically, risk committees consisting of senior managers are responsible for day-to-day internal risk management oversight. Oversight functions are supported by internal reporting policies.

47 ASIC, *Review of OTC electricity derivatives market participants' risk management policies* - Report 390, April 2014.

market participant implemented each of the policies they provided details to us about.[48]"

The review is a follow-up to earlier publications by ASIC on the adequacy of risk management by NEM participants.[49] In these earlier publications, ASIC raised concern about the degree of counterparty credit risk in the NEM.[50]

The recent review was conducted among 19 non-bank NEM participants, including retailers, generators, generators with a retail arm (gentailers), renewable energy providers and electricity traders. As part of this survey, ASIC benchmarked participants' existing arrangements against industry best risk management practice.

ASIC reviewed the written documentation provided by NEM participants according to a number of categories of interest, such as corporate governance, credit support and risk metrics. Some of the most used strategies and corporate governance arrangements that ASIC found are included in Table 4.1.

Table 4.1 Mainstream risk management practices by NEM participants

Characteristic	Practice	Percentage[51]
Policies	Risk management policies	100%
	Risk limits	95%
Credit support	ISDA master agreements	84%[52]
	Counterparty limits	84%
Governance	Risk committee	100%
	Risk committee escalation	100%
	Roles and responsibilities	89%
	Front, back and middle office segregated	79%
Valuation	Mark-to-market methods	84%

Source: ASIC, *Review of OTC electricity derivatives market participants' risk management policies* - Report 390, April 2014, p11.

48 ASIC, *Review of OTC electricity derivatives market participants' risk management policies* - Report 390, April 2014, p4.

49 ASIC, *Electricity derivative market participants: Financial requirements* - Consultation Paper 177, May 2012; and *Response to submission on CP177 electricity derivative market participants: financial requirements* - Report 320, December 2012.

50 ASIC, Ibid, Report 320, p13.

51 Percentage of surveyed participants that used a particular practice. This table includes those practices that ASIC found were used by more than 75% of the surveyed participants.

52 Not all of the users of an ISDA master agreement also have a Credit Support Annex to the ISDA agreement in place that deals with collateral requirements. According to the ASIC survey, 53% of the surveyed participants have a Credit Support Annex in place.

ASIC’s main findings are summarised in Box 4.1

Box 4.1: ASIC conclusions on risk management policies

ASIC stated that:

> “Generally, we consider that market participants' risk management policies and practices appear to be appropriate to the nature of their business, taking into account the size and complexity of the financial services business they conduct.[53]”

Some more detailed findings included the following:

- On the basis of the documentation reviewed, ASIC found that although the risk management practices of market participants are varied, they are generally quite comprehensive. ASIC did not identify any areas of significant concern;
- ASIC found that the market participants’ documentation addressed many of the main risks which it considered relevant;
- ASIC considered that the breadth, depth and innovative nature of the documentation of medium-sized market participants was the most impressive. Some of the best aspects of their documentation were that directives and tools for risk management were clearly set out and could easily be understood by traders and management; and
- ASIC noted that, although smaller-sized market participants did not have equally comprehensive policies, in many cases it considered their documentation appropriate to the nature, size and complexity of their electricity derivatives business. A few smaller-sized market participants also had documentation that was similar in quality to some of their larger peers.[54]

ASIC maintained its concerns about the degree of concentration on the market:

> “The interconnectedness of market participants, and the relatively small number of market participants with a significant market presence, creates concentration risk.[55]”

ASIC noted that market participants recognise that it is good risk management practice to address concentration risk in risk management policies, for example, by providing for the effective monitoring and review of credit limits and usage.[56]

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53 ASIC, *Review of OTC electricity derivatives market participants' risk management policies* - Report 390, April 2014, p4.

54 Ibid, p9.

55 Ibid, p18.

56 Ibid, p21.

4.1.2 Commission considerations

Participants' risk management practices reflect the commercial incentives on participants to adequately manage their risks and protect themselves from the impacts of other participants' failure. The Commission note ASIC's conclusions that participants' practices appear to be appropriate to the nature of their business, taking into account the size and complexity of the financial services business they conduct. ASIC's conclusions must be viewed in that context and, more broadly, having regard to ASIC's functions of promoting market integrity and consumer protection.[57]

However, the Commission considers that risk management practices cannot be solely relied on or expected to eliminate all risks to financial system stability in the NEM. Even with very diligent risk management by participants:

- A participant's incentives to manage risk carefully would not necessarily take account of the potential systemic consequences of its failure. While a single participant has an incentive to avoid failing, its assessment of its appropriate risk-reward trade-off would only have regard to the potential loss of its own investors' equity in the event of its failure – it would not choose a level of risk exposure that has regard to the potential harm its failure could inflict on the system as a whole. In other words, an individual business's choice of risk and return would not take into account the potential harmful 'spillover' costs in the event its failure triggers a financial contagion.

- The potential for participant failure to trigger financial contagion would depend on a wide range of factors and the circumstances at the time, all of which are difficult to quantify or judge in advance. It would be very difficult and costly for businesses to insure themselves fully against such an uncertain, extreme event.

Even putting the above issues aside:

- risk management practices may not allow for the additional liabilities associated with becoming a ROLR under a large retailer failure situation.

- industry structure may limit the possibility for participants to adequately diversify potential risk among a wide number of counterparties.

- it would be impossible for participants to have all the information needed to correctly estimate the probability of counterparty failure under OTC contracts and the impacts of such a failure on their businesses and other parties.

Insurance against unknown, uncertain events

In its submission to the second interim report, EnergyAustralia noted that there is a strong commercial incentive for participants to have governance and regulatory frameworks for managing risk across their NEM activities. It states that participants'

57 Section 12A of the Australian Securities and Investment Commission Act 2001 (Cth).

risk management is frequently tested because of the volatility of the spot market, and "no market failure has been identified to justify additional regulatory intervention".[58]

In light of the good performance of the Australian financial system during the global financial crisis, the previous Chairman of the Australian Prudential Regulation Authority (APRA) commented:

> "The lack of severe stress experience can lead to reluctance by institutions to contemplate their own mortality and a willingness to dismiss as implausible scenarios that would drive financial losses. Scenarios built on benign experience will underestimate potential stress and provide false confidence.[59]"

However, good performance in the face of past scenarios could lead to a difficulty for participants of imagining appropriately severe economic conditions as part of testing their risk management practices.

Limited possibilities to diversify risk

By contracting with a number of counterparties, participants could reduce their exposure to the risk of a given counterparty failing.

This requires a sufficient number of suitable participants in the market that could serve as alternative counterparties. The more suitable potential counterparties there are operating in the market, the more easily the risk of counterparty default can be spread across multiple counterparties.

Compared to financial markets, the NEM has fewer participants. There are benefits to this concentration, because it means that participants are likely to have more knowledge of their counterparty risks. Also, the presence of some level of concentration may in fact reflect a lack of interconnectedness in the market, which can help attenuate the likelihood of a financial contagion. However, the disadvantage of concentration is that it may imply fewer opportunities for participants to diversify counterparty risk.

According to data from the Australian Financial Markets Association (AFMA), electricity trading is largely concentrated between a small number of participants.[60]

58 Submission to the second interim report by EnergyAustralia, 3 October 2014, p5.

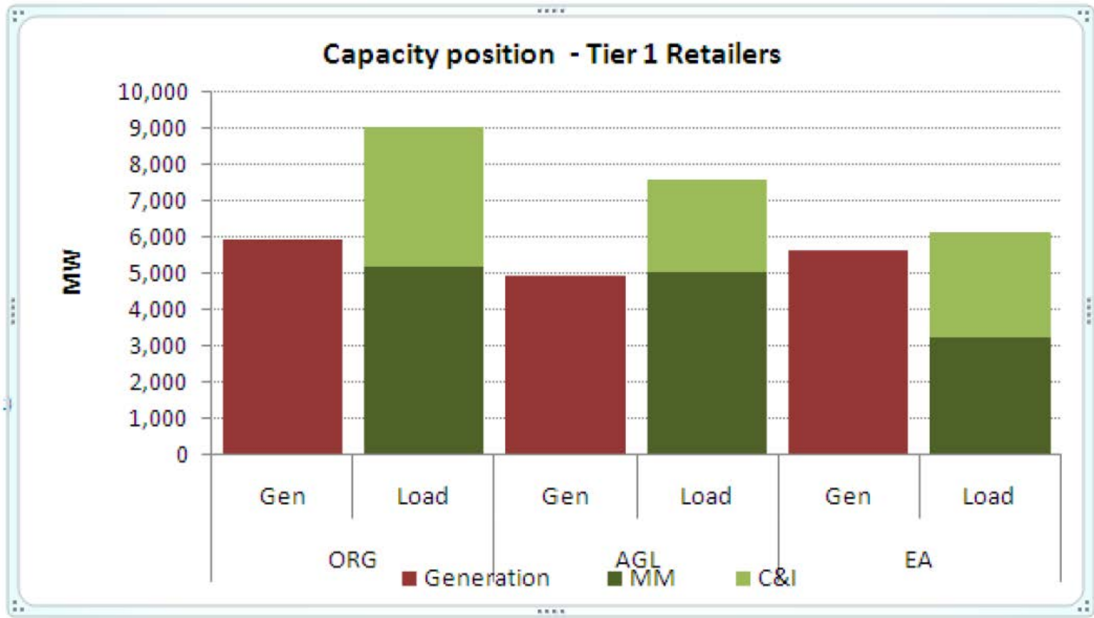
59 J.F. Laker, *The Australian Banking System Under Stress - Again?*, AB+F Randstad Leaders Lecture 2012, 8 November 2012, p5. See also: V. Kaminski, *TXU bankruptcy holds lessons for risk managers*, Energy Risk, 13 May 2014.

60 In the 2012 Australian Financial Markets Report, AFMA estimated the cumulative market share in electricity trading of the top 8 respondents as 91.1%, and that of the top 3 at 71.1%. In the 2013 edition, these numbers were 92% and 58.6% respectively. See AFMA, *2012 Australian Financial Markets Report*, p52, *2013 Australian Financial Markets Report*, p51. It is likely the difference between the top 3 cumulative market share can be partly explained by the fact that EnergyAustralia was not among the respondents in 2012, but responded in 2013.

As mentioned, ASIC similarly concluded that the interconnectedness and the relatively small number of market participants with a significant market presence creates a concentration risk.[61]

AGL and Origin, in their submissions to the stage two options paper, have questioned whether there is a high degree of concentration in the OTC contract market. They argue that trade between the big three gentailers is in fact modest, and that they are contracting with a wide variety of stand-alone generators and tier 2 retailers as counterparties.[62] Origin included the following graph in its submission to the stage two options paper:

Figure 4.2 Capacity position Tier 1 retailers November 2013



Source: Origin submission to the stage two option paper, 19 November 2013, p9. Please note that this graph does not reflect AGL's acquisition of Macquarie Generation on AGL's capacity position.

Based on the capacity position of the three tier 1 retailers, Origin stated that it is highly unlikely that excessive concentration would exist in either the wholesale or contract market in the NEM.[63] To effectively hedge mass market (MM) and commercial and industrial (C&I) customers, tier 1 retailers would be required to contract with either tier 2 retailers, standalone generators, or both. Origin argued that concentration between tier 1 retailers would not be possible based on internal generation capacity, supporting OTC contracts, and highly inefficient were it to occur through the contract market.

61 ASIC, *Review of OTC electricity derivatives market participants' risk management policies* - Report 390, April 2014, p18.

62 See submissions to the stage two options paper by AGL, 18 December 2013, p4 and Origin, 19 November 2013, p8/9.

63 Ibid Origin submission, p9. 'Tier 1 retailer' generally refers to the largest three vertically integrated retailers that were historically the incumbent retailers, whereas 'tier 2 retailer' refers to smaller retailers that entered the market when retail competition was introduced.

Information about the interconnectedness of participants in the NEM via OTC contracts and the exposures under these connections is not available. The Commission notes, however, that any concentration risk could increase if liquidity in the OTC contract market decreases. Also, even if direct exposure among tier 1 retailers is limited because of lack of contracting amongst this group, they could still be indirectly exposed to one another via common counterparties.

Additionally, while the graph supports the notion that tier 1 retailers are unlikely to have excessive concentration of hedge contracts between each other, it does not address the possibility that the tier 2 retailers and stand-alone generators may have large concentrations of contracts with the tier 1 retailers.

The Commission also note ASIC's concern about the low level of participation of non-electricity businesses in the OTC contract market. Participation by, for example, banks and financial institutions could add additional liquidity in the contracts market and provide a means for participants to diversify risk. Although banks would not have a physical hedge to back up their OTC position, they are subject to regulations requiring minimum capital reserves and need to comply with more stringent requirements regarding risk management.

Limited information about counterparty risk

There are limits to what a participant can learn about its OTC counterparty's financial situation on the basis of available information sources (eg, annual reports, information from credit rating agencies). Also, participants will have limited knowledge about interconnectedness in the market, that is, how other participants are linked via OTC contracts and the level of exposures under these financial relationships.

Participants will assess counterparty risk to the best of their ability. They will implement adequate insurance policies to address uncertainty concerning a counterparty's financial position.[64] Residual risks will, however, remain due to the lack of complete information and transparency about other participants' exposures.

4.2 External regulatory arrangements

The Commission has considered whether a number of external regulatory arrangements may contribute to the identification and mitigation of risks to financial system stability in the NEM. The most important of these obligations originate from licence requirements administered by ASIC.

In addition, certain requirements may arise from debt covenants entered into with financial lenders, and obligations contained in the ASX listing rules for participants which are listed on the ASX. Because debt covenants could be different for each

64 For example, market participants could require a counterparty that is considered to be less creditworthy to post collateral against its contractual obligations, or the participant itself could hold adequate financial reserves as a buffer against a potential counterparty default. It is our understanding that such considerations are generally part of NEM market participants' risk management practices.

participant and only a few participants are listed on the ASX, these categories will not be discussed below. In addition, participants are subject to accounting and auditing standards.

4.2.1 Requirements associated with holding an Australian Financial Services Licence

Description

The Corporations Act 2001 (Cth) requires entities dealing in OTC electricity derivatives, such as generators and retailers, to hold an Australian Financial Services Licence (AFSL). Management of this licence requirement is the responsibility of the ASIC.

ASIC has issued a number of relevant regulatory guides which explain how the AFSL regime should be implemented, in particular RG104 and RG166.

Specifically, RG104 states that ASIC expects AFSL holders to have structured and systematic processes in place for identifying, evaluating and managing risks, while RG166 outlines financial requirements that a business needs to meet as an AFSL holder.

Box 4.2: Summary of obligations on AFSL holders as set in RG166[65]

Particular among the RG166 requirements are:

- Risk management systems must address risk to financial resources;
- Positive net assets, and sufficient cash resources to cover the next 3 months; and
- Required surplus liquid funds.

Under RG 166, electricity derivative market participants who hold an AFSL are generally subject to two levels of financial requirements.

These are:

- the base level requirements of cash flow and balance sheet solvency and the cash needs requirement (see Section B of RG 166); and
- because licensees incur actual or contingent liabilities by dealing or making a market in derivatives, the requirement to hold adjusted surplus liquid funds equal to the sum of: (i) $50,000; plus (ii) 5% of adjusted liabilities between $1 million and $100 million; plus (iii) 0.5% of adjusted liabilities

65 ASIC, regulatory Guide 166, *Licensing: Financial requirements*, November 2013.

for any amount of adjusted liabilities exceeding $100 million, to a maximum requirement of $100 million in AFSL.[66]

Participants are also required to prepare a three month forward looking cash flow analysis, which would be updated every quarter.

Commission considerations

Whilst the AFSL conditions contain requirements regarding cash flow planning and minimum tangible assets, these requirements are not prudential requirements.

They are designed to require companies to have the financial and corporate ability to implement their compliance functions and meet their legal obligations, but not to ensure that companies will never fail.

The AFSL financial requirements are minimum financial requirements to promote appropriate financial risk management, taking into account the nature, scale and complexity of an AFS licensee's business. They "are intended to help ensure that cash shortfalls do not put compliance with the licensee's obligations at risk."[67] ASIC has stated: "ASIC is not a prudential regulator. Therefore, our financial requirements do not seek to prevent AFS licensees from: (a) becoming insolvent; or (b) failing because of poor business models or cash flow problems."[68]

AFSL requirements have some relevance to (aspects of) risk management, but these requirements do not have as their objective the preservation of financial system stability in the NEM.

The presence of financial reserves determines, to an extent, how a participant is able to cope with the failure of a counterparty. Risk management plays a key role in ensuring an appropriate level of buffer is maintained that is linked to energy companies' risk appetites.

As explained in box 4.2, under the AFSL, ASIC requires electricity participants to hold some financial capital reserves, because they incur actual or contingent liabilities by dealing or making a market in derivatives. This requirement is the only stipulated financial buffer obligation on participants.

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66 Adjusted liabilities is defined as 'the amount of total liabilities as they would appear on a balance sheet at the time of calculation made up for lodgement as part of a financial report under Chapter 2M if the licensee were a reporting entity: (a) minus the amount of any liability under any subordinated debt approved by ASIC that would be included in the calculation; and (b) minus the amount of any liability the subject of an enforceable right of set-off that would be included in the calculation, if the corresponding receivable is excluded from adjusted assets; and (c) minus the amount of any liability under a credit facility that would be included in the calculation, if it is made without recourse to the licensee; and (d) plus the value of any assets that are encumbered (other than assets that are encumbered merely to support a guarantee provided by the licensee) as a security against another person's liability where the licensee is not otherwise

67 ASIC, *Response to submissions on CP 177 Electricity derivative market participants: Financial requirements*, RP 320, December 2012, p5.

68 See for example: ASIC, *Electricity derivative market participants: Financial requirements*, CP177, p8.

The AFSL requirements prescribe a minimum base amount but these requirements are unlikely to be the main driver in determining the actual level of financial buffer held by participants to manage risks. The level of buffer is linked more broadly to participants' risk appetite, their ability to access additional financing, and, in some cases, requirements imposed by lenders under debt covenants.

The Financial System Inquiry Final Report recommended that AFSL regimes should be strengthened so ASIC can deal more effectively with poor behaviour and misconduct. This would include ASIC approval for material changes in the ownership or control of a licence and a greater capacity to impose conditions on licensees to address concerns about serious or systemic non-compliance with obligations. It was also recommended that there should be increased civil and criminal penalties for contravening ASIC legislation, and an ability for ASIC to seek a pay back of profits earned as a result of contravening conduct.[69]

4.2.2 Accounting and auditing standards

Participants in the NEM are subject to Australian accounting and auditing standards. To help understand the relationship between such standards and risk management practices in the NEM, the Commission sought advice from Deloitte. Deloitte's report was published in conjunction with the second interim report.[70]

In their report, Deloitte recognised that financial reporting and risk management are different functions. Although Australian Accounting Standard AASB 7 Financial Instruments: Disclosure requires both quantitative and qualitative disclosures in relation to risks associated with valuation of reported financial instruments, valuation is the sole extent of the link between the two functions. Deloitte advised that the only inherent link between risk management and financial reporting is through ensuring consistency between valuation of reported financial instruments, such as derivatives, and how participants value risk under their risk management practices.

This means that accounting standards require participants to report on how they have decided to value derivatives contracts and do not directly determine the valuation of financial instruments. The current Australian Accounting Standards relevant to valuation of electricity derivatives are set out in Table 4.2.

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69 The Australian Government the Treasury, Financial System Inquiry Final Report, 7 December 2014, pp250-253.

70 Deloitte, *Accounting and Auditing requirements of market participants in the NEM – derivative valuation*. Report to the AEMC, May 2014.

Table 4.2 Current Australian Accounting Arrangements relevant to Derivative Valuation[71]

Standard	Application
AASB 139 Financial Instruments: Recognition & Measurement	Defines financial instruments (including derivatives) and the accounting treatment thereof.
AASB 13 Fair Value Measurement	Provides guidance on fair value measurement, in particular the requirements of Credit Valuation Adjustments. This standard defines fair value and is applicable when another accounting standard requires or permits fair value measurements or disclosures about fair value measurements. AASB 13 implicitly assumes that the fair value measurement is undertaken on a going concern basis.
AASB 7 Financial Instruments Disclosures	Requires various financial risk management disclosures, both quantitative and qualitative. Qualitative disclosures include financial risk management policy approaches. Quantitative disclosures include various market risk sensitivities, credit quality and liquidity analysis.
AASB 9 Financial Instruments	This standard is gradually replacing AASB 139 Financial Instruments: Recognition & Measurement. The standard can be early adopted and contains new hedge accounting rules.
AASB 132 Financial Instruments: Presentation	Guidance in relation to the classification of financial instruments as financial assets, financial liabilities and equity instruments.

How participants value their derivatives is important because financial reporting is used by participants as one source of information when assessing the creditworthiness of counterparties. In this regard, the accounting standards require that counterparty credit risk be incorporated into the fair value measurement of derivatives. This includes the risk that a counterparty to an OTC derivative will default prior to the expiration of the contract and will not make all payments required under the contract.

Accounting standards provide some general guidance on how participants should calculate this credit risk adjustment but do not specify a common approach. Hence, the participant's own commercial attitudes rather than standards will dictate how counterparty default risk is measured and taken into account.

External audits of the financial report of Corporations Act entities must be conducted in accordance with Australian Auditing Standards issued by the Australian Auditing

71 Ibid.

and Assurance Standards Board.[72] In conducting an audit of the financial report, the overall objectives of the auditor are:

- To obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial report is prepared, in all material respects, in accordance with an applicable financial reporting framework; and

- To report on the financial report, and communicate as required by the Australian Auditing Standards, in accordance with the auditor's findings.

Deloitte also commented on the role of an external auditor. The external auditor's role is to identify and assess the risks of material misstatement from a financial reporting perspective only. To do this, the external auditor needs an understanding of the internal audit function, to the extent that it can validate that the internal audit function has the knowledge and skill to cover, and has in fact covered, the entity's financial instrument activities, as well as the competence and objectivity of the internal audit function.

Due to this reliance of the external auditor on those charged with corporate governance, and the competency of the internal audit function, the auditing standards do not provide detailed guidance in relation to risk management practices in the NEM.

4.3 Transparency and reporting obligations

4.3.1 Description

Under the NEL and NER, energy market bodies collect and report information relevant for the performance of their functions. AEMO collects information on physical plant and network issues that may be useful in monitoring potential threats to system stability. Components of this information, such as the Projected Assessment of System Adequacy and Electricity Statement of Opportunities, can provide useful inputs for monitoring potential physical energy supply issues that affect broader system stability.

In addition, the AER gathers information for the purpose of, among other things, monitoring compliance by participants with the NER and performing its economic regulatory functions.

The above information is not collected, or used for, identification of threats to financial system stability in the NEM. None of the energy agencies collect additional information on participants' derivative exposures.

Financial information about participants is largely limited to information available under the Corporations Act in relation to company obligations, and public disclosure

72 A financial report must be prepared annually and lodged with ASIC as a requirement under the Corporations Act. See also Table 4.3.

of financial statements for listed entities. Table 4.3 summarises the existing financial reporting requirements for participants.

Table 4.3 Financial reporting requirements for market participants

Reporting requirements	Description
Corporations Act 2001	The Corporations Act requires companies to provide audited financial statements to ASIC at least once a year. Financial statements must adhere to the relevant accounting standards. They are not publicly disclosed, unless required by listing rules. In some instances, Annual Reports can be lodged with ASIC up to 3 to 4 months after the end of the financial year.
AFS licensing requirements	Holders of AFS licenses must notify ASIC of compliance breaches (or likely compliance breaches) of licensing requirements.
ASX listing rules	For listed companies, financial statements and continuous disclosure obligations as defined in ASX Listing Rules must be publicly disclosed. Financial statement disclosures are published at the parent entity and consolidated group levels. Market participants that are subsidiaries or affiliates of broader corporate groups are not required to separately disclose financial statements at the legal entity level.
Other	For market participants with credit ratings, other financial data may be provided to rating agencies. These data may be available to the public (typically through subscription), however, the data are generally in formats tailored to the needs of the rating agency and may not be consistent across market participants.

In addition, the financial regulators, APRA, ASIC and the Reserve Bank of Australia (RBA), annually undertake a survey on OTC market activity. Cooperation with the survey is voluntary. The survey results themselves are not publicly disclosed, but aggregate-level information may feed into the annual Report on the Australian OTC Markets, jointly published by the financial regulators.

4.3.2 Commission considerations

The NEM information requirements provide useful information related to physical and wholesale market activities. This reported information does not identify risks relating to or arising from the financial interdependencies between industry participants.

Further, it is doubtful whether general corporate reporting would provide a useful mechanism for providing insight into risks to financial system stability in the NEM:

- Corporate reporting generally relates to individual businesses and does not, as such, provide a system-wide perspective. Substantial additional analysis would need to be conducted in order to further collate the information for that purpose.
- Information on financial connections to other businesses is not necessarily part of the reported information.
- Information through corporate reporting is often backward-looking (eg annual reports) and may fail to operate as an early warning indicator.
- Some information may only be available in relation to those participants that are listed on the ASX.

In sum, the current regulatory framework lacks transparency to adequately assess systemic risks from the financial interconnections that exist between participants in the NEM. This information is not routinely collected and not otherwise readily available.

Our considerations regarding any transparency measures that could be considered in response to this situation are contained in Chapters 10 and 11.

5 Assessment of current arrangements to respond to events that threaten financial stability in the NEM

Current arrangements to respond to events that threaten NEM financial system stability are not adequate in the situation of a large participant failure. This is because:

- current arrangements that restrict or cease the operation of a failing participant in the market:
  - do not allow all relevant issues to be taken into account when responding to a participant failure;
  - do not provide the flexibility that is needed in such a situation;
  - do not provide a comprehensive framework for decision-making and coordination across all relevant governments and market bodies; and
  - are unclear as to how governments' interests are incorporated in the process.
- implementing the ROLR scheme after the failure of a large retailer could threaten NEM financial system stability; and
- where a large participant failure causes physical supply concerns, it is unclear whether the current arrangements would allow the failed participant's generation assets to continue operating in the wholesale market.

Without adequate arrangements in place, events such as the failure of a large participant could result in severe financial distress and threaten NEM financial system stability. This could affect multiple NEM participants and, ultimately, consumers of electricity. The NEO could also be adversely affected. As a result, government may need to intervene to protect the physical and financial integrity of the NEM in the event of a large participant failure.

This chapter sets out the Commission's analysis and conclusions regarding the adequacy of current arrangements to manage and respond to events that threaten NEM financial system stability.

5.1 Arrangements to respond to events that threaten financial market stability

Chapter 3 outlines how the failure of a large market participant could result in widespread financial contagion in the NEM. The effects of such an event would be damaging to the NEM and consumer and investor confidence.

Therefore it is important that the arrangements that apply in the event of a large participant failure are clear and robust, and allow for an effective response.

There are two categories of arrangements:

- arrangements that restrict or cease the market operations of the failing participant where it is no longer able to meet its financial obligations; and
- arrangements that deal with the consequences of a participant having failed:
  - the ROLR scheme; and
  - general insolvency arrangements under the Corporations Act.

In addition, there are security of supply provisions that may be relevant if a failure coincides with physical supply concerns. There is also the question of whether the current arrangements could enable the generation assets of a failed market participant to continue operating in the NEM.

In practice, depending on the operations and activities of the failing participant, both financial and physical impacts may occur. This is especially the case for large vertically integrated participants, with activities in both retail and generation, and across multiple regions in the NEM.

With the exception of the ROLR scheme, which was discussed in Chapter 3, the arrangements listed above are discussed in the following sections.

5.2 Arrangements that restrict or cease the market operation of the failing participant

5.2.1 Description

When a NEM participant cannot meet its financial obligations for operating in the market, arrangements are in place that could restrict or cease its operations. These arrangements protect the integrity of the market against the continuing build-up of financial liabilities that are not likely to be met.

The various decisions relate to whether or not to:

- suspend the participant from the market;
- revoke the participant's retailer authorisation;
- cancel or amend the participant's AFSL; and
- issue a ROLR notice.

Arrangements that restrict or cease the market operation of the failing participant

Default and suspension

If a participant cannot meet its financial obligations in the spot market, AEMO may, under the NER, issue a default notice to the participant, specifying the default and requiring its remedy. If the default is not remedied by the time specified in the default notice, AEMO may issue a suspension notice. A suspension notice advises the defaulting participant of the date and time from which it is suspended from trading. The suspension of a retailer from the market would constitute a 'ROLR event' and is likely to trigger the ROLR scheme by the AER.

Revocation of a retailer authorisation

In order to be a retailer in the NEM, a participant must hold a retailer authorisation. This authorisation may be revoked when a participant is no longer able to meet its financial obligations under its retailer authorisation. This decision is made by the AER or a state regulator, depending on whether the NECF has been adopted in the NEM jurisdiction. Revocation of a retailer's authorisation would constitute a 'ROLR event' and is likely to trigger the ROLR scheme by the AER.

Cancel or amend an AFSL

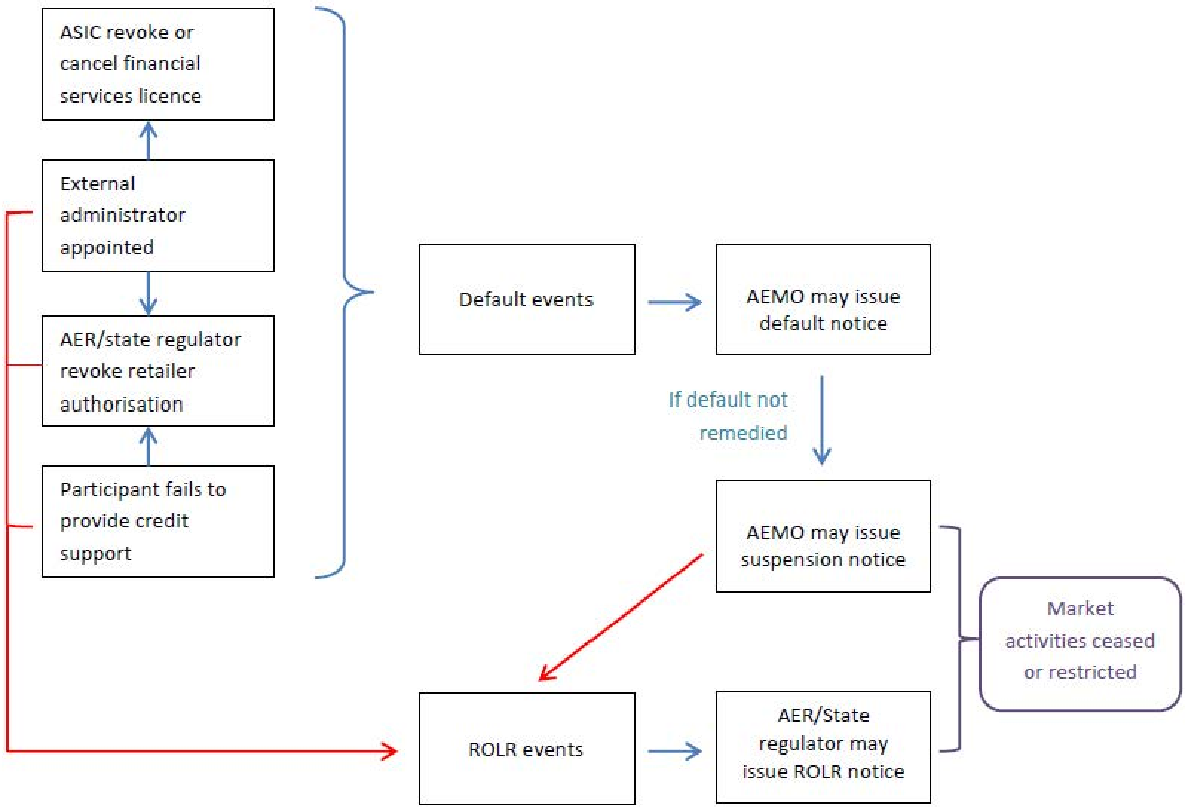
Participants who trade in derivatives must hold an AFSL. ASIC may require an AFSL holder to remedy a breach(es) if the licence holder has not complied with its licence obligations. ASIC may also suspend or cancel an AFSL in such a situation. If the licence holder becomes insolvent, ASIC may immediately suspend or cancel its licence.

Issuing a ROLR notice

As discussed above, suspension of a retailer from the market or the revocation of its authorisation would constitute a 'ROLR event' under the NERL. The same applies in the event of the appointment of an insolvency official. These events are likely to trigger the ROLR scheme in respect of the failed retailer. Where the NECF applies, the AER triggers the ROLR scheme by issuing a ROLR notice, in which it states the date on which the customers of the failed retailer are to be transferred to the relevant designated ROLR(s).

Some of these decisions also interact. For example, the revocation of a retailer authorisation or licence may trigger the issuing of a default notice under the NER, or may also trigger the issuing of a ROLR notice under the NERL or an equivalent jurisdictional scheme. This potential interaction is illustrated by the following diagram:

Figure 5.1 Relationships between decisions in the event of a participant default



When a participant fails, a number of market bodies would be considering decisions that could effectively restrict or cease the market operation of the participant. In the current arrangements, the frameworks under which these decisions are made do not distinguish between a large participant failure and a smaller participant failure. In practice however, the failure of a large participant would have very different consequences for the market compared to a smaller participant failure.

Managing and responding to a large participant failure would be complex and would require consideration of a wide range of factors at the same time. Various governments and market bodies would need to be involved. Relevant decisions would need to be made within a short timeframe, so timing in decision-making is also critical. For these reasons, the Commission established in the second interim report that the current arrangements are not adequate for responding to a large participant failure.[73]

5.2.2 Stakeholder submissions

In its submission to the second interim report, AEMO reiterated that the ROLR scheme would be unable to prevent financial contagion in the event of a large retailer or gentailer failure. It noted that the current arrangements may not promote the NEO

73 AEMC, Second interim report, NEM financial market resilience, August 2014, p51.

because, under these arrangements, participant failure could exacerbate the risks of contagion and market failure. AEMO acknowledged that while governments can currently step in to manage a crisis, the speed and efficiency of their response would be impeded without prior planning and preparation.[74]

The AER observed that managing a large retailer failure through the ROLR regime would result in unacceptably high market concentration.[75]

Some stakeholders disagreed with the finding in the second interim report that there was a case for treating failed large participants differently from smaller participants.[76]

EnergyAustralia stated that treating large and small participants differently was inconsistent with the analysis in the second interim report, and that the ROLR scheme already provides a strong incentive for owners and creditors of a large retailer to address insolvency issues and engage with government. EnergyAustralia also noted that, in the event of a large retailer failure, regulatory and government agencies would need to consider the implications of triggering the ROLR scheme and would communicate with each other effectively to manage the event.[77]

In their submissions to the second interim report, stakeholders also emphasised:

- that the likelihood of a large retailer failing was very low,
- that consequently there was a low probability of NEM financial instability, and
- with incremental improvements, the current arrangements were sufficient to respond to events that threaten NEM financial system stability given the costs of developing alternatives to manage a large retailer failure.[78]

ESAA stated that the report overplayed the risks of large participant failure and that the costs of preventing such marginal risks may outweigh any potential benefits. ESAA noted that any variance in the treatment of market participants is likely to have an adverse effect on the NEM.[79]

5.2.3 Commission considerations

While the likelihood of a large participant failure is uncertain, the consequences of a failure could have a severe effect on NEM financial system stability. Accordingly, the

74 AEMO submission to the second interim report, 21 October 2014, p1

75 AER submission to the second interim report, 25 September 2014, p1.

76 Submissions to the second interim report by EnergyAustralia, 3 October 2014, pp5-6; ESAA submission to the second interim report, 26 September 2014, p1; Origin 25 September 2014, pp1,4-5.

77 EnergyAustralia submission to the second interim report, 3 October 2014, pp5-6.

78 Submissions to the second interim report by EnergyAustralia, 3 October 2014, pp5-6; ESAA, 26 September 2014, p1; Origin 25 September 2014, pp1,4-5.

79 ESAA submission to the second interim report, 26 September 2014, p1.

Commission considers that the current arrangements are not adequate for responding to a large participant failure. This is for a number of reasons:

- A large participant failure would likely require different solutions compared to a smaller participant failure to minimise the risk of contagion in the NEM. This requires new decision-making and introducing a clear and flexible 'toolkit' of options, which are not available under the current arrangements.
- Responding to a large participant failure would require consideration of a wide range of issues by decision makers, including the impacts that such a failure could have on the broader economy and for the NEM. Under the current arrangements, there is a risk that not all relevant issues, including financial market stability considerations, could be taken into account by the various decision makers and on the basis of the information available to them.
- In the event of a large participant failure, decisions need to be made in a coordinated manner to avoid contradictory outcomes. Currently, there is no comprehensive framework for decision-making and coordination across all relevant governments and market bodies.
- Governments will be critically interested in a large participant default. They will seek to maintain consumer and market confidence and intervene if required. It is unclear how governments' interests are incorporated in the current process.

Each of these reasons are discussed in more detail below.

Limited 'toolkit' of response options

As outlined above, the ROLR scheme may not be the most appropriate response to every large retailer failure. Very large participants are likely to have substantial retail activities across a number of different NEM regions. They may also have substantial generation assets. A large participant failure would therefore have national implications.

A large participant failure would also be complex, and the circumstances around the failure of a large participant would be different in each case. This means that no single set of arrangements would be appropriate in all situations. Any solution would need to be tailored to the specific case of the defaulting participant and the market situation at that time.

Not all relevant aspects may be taken into account

Under the current arrangements, no individual organisation can properly take account of all the factors relevant to avoiding financial contagion and threats to financial system stability in the NEM. Responding to a large participant failure would require consideration of a wide range of factors, such as:

- retail and generation activities;
- activity in the financial sector;

- financial and physical aspects of the market; and
- impacts across multiple regions.

In addition, matters such as maintaining consumer and investor confidence and competition issues would also need to be evaluated.

Discretion and judgement would need to be exercised when developing the most appropriate response for each situation. Relevant decisions would need to be made within a short timeframe, so timing in decision-making is also critical.

No comprehensive framework for cooperation and coordination

Cooperation and coordination between relevant organisations at a time of a large participant failure would be critical.

Without both, decisions:

- would be made in isolation;
- could lead to contradictory outcomes; and
- could be mismatched in terms of timing.

In theory, AEMO could decide, given the particular circumstances of the case, not to suspend a defaulting participant from the market. However, that participant's operation in the market could effectively be restricted if the AER or a state body decided to revoke the participant's licence or ASIC chose to revoke the participant's AFSL.

Currently, there is some cooperation and coordination between certain market bodies. For example, AEMO and the AER have in place coordination arrangements for dealing with ROLR events. There are also arrangements in place between AEMO and various state bodies for dealing with emergency situations of security of supply.

For a large participant failure, more comprehensive and broader cooperation and coordination would be required, covering all relevant market bodies and government.

No clear incorporation of government interests

Governments would be critically interested in a large participant default, for a variety of reasons. These include being aware of the situation to help maintain confidence in the market including investors and in the minds of consumers, as well as ultimately being prepared to intervene if required.

Currently, there are administrative arrangements for market bodies to inform governments of a participant failure. However there is no formal, institutional structure for involving governments in the event of a large participant failure. It is also unclear how government considerations could be taken into account, or how government would be involved or advised on the best response in the event of a large participant failure.

5.3 External administration

5.3.1 Description

A company may be placed in one of the forms of external administration whereby the directors of the company relinquish control to an insolvency practitioner who conducts the affairs of the company.

If an electricity retailer went into a standard form of external administration, the most common primary objective of the appointed insolvency practitioner would be to obtain the best financial recovery possible for the retailer's creditors. Where there is financial benefit to creditors, this could involve the practitioner continuing to trade the company while it undergoes a process of rehabilitation, or allowing for the sale of its business or assets as a going concern. Where there is no financial benefit to creditors in continuing to trade the company, the practitioner may instead cease trading the business and focus solely on the realisation of the company's assets, even if this action were to be severely detrimental to the retailer's customers. The administrator has a duty to conduct the administration in the best interests of creditors and for the purpose of achieving these objectives.

The administrator of a company under external administration is personally liable for debts he or she incurs in the performance or exercise, or purported performance or exercise, of any of his or her functions as administrator. In exchange, the administrator has an indemnity out of the company’s assets for the payment of such liabilities.

Importantly, there is no limit on the ability of contracting parties to exercise their rights to terminate contracts of supply or purchase of goods or service when a company is under administration.

Voluntary administration is the most common method of reorganisation. Voluntary administration is a procedure designed to salvage companies which are either insolvent or likely to become insolvent so that the company can return to trading or provide a better return for creditors than would be available in liquidation.

In the second interim report, the Commission established that external administration may not be relied on for meeting public policy objectives such as the NEO, and considered that alternatives to external administration and to the ROLR scheme could be more appropriate for a situation of a large participant failure.[80]

80 AEMC, Second interim report, NEM financial market resilience, August 2014, p54.

5.3.2 Stakeholder submissions

In their submissions to the second interim report, Origin and the ESAA noted that it was likely there would be an alignment between a traditional administrator's focus on the best possible financial recovery of a failed retailer and the NEO which promotes continuation of supply. This is because administrators would be likely to make generation capacity available to the NEM to maintain revenue to the failed business.[81]

Origin and the ESAA believed the likelihood of a large retailer failure to be very low and the likelihood of an administrator then withdrawing generation capacity from the NEM to be remote. Because these would be low probability events, Origin and the ESAA deemed it unreasonable to put significant resources toward designing and implementing alternatives to traditional administration.[82]

5.3.3 Commission considerations

If a large participant failed, standard forms of external administration may not be relied on for meeting public policy objectives, because:

- the primary **objective** is to obtain the best financial recovery possible for the creditors of the business. This may lead to actions that are not consistent with the NEO, for example:
  - decisions may be made to cease trading and focus on realising the company's assets, even if this threatens retail services to customers, or the security of supply to the NEM.
  - the focus is on the individual business and its creditors, rather than broader concerns such as the stability of the NEM. Therefore an insolvency practitioner's actions may not be consistent with mitigating the risk of financial contagion. For example, the failure of a large participant leaves its OTC contract counterparties without hedges, so those counterparties must either try to re-contract with other parties, or be exposed to spot market prices. This could lead to cascading financial distress and failure in the NEM, particularly if the initial large participant failure occurred in a challenging commercial environment (eg, due to extreme spot prices, or a lack of liquidity in financial markets).
- the **timeframes** governing activities in the NEM may make it challenging to resolve a major corporate failure before the participant is suspended from the wholesale spot market. One of the triggers for AEMO to issue a default notice is insolvency, or the appointment of an administrator.[83] If one of the NEM default triggers occurs, then the situation could escalate rapidly. This could restrict the

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81 Submission to the second interim report by Origin, 25 September 2014, pp4-5; ESAA, 26 September 2014, p2

82 Ibid.

83 NER, clause 3.14.21 (a)

ability of the participant to generate, even where administrators are prepared to continue operating to maintain revenue to the business.

In addition, under current external administration laws, it is unclear what rights the government would have to appoint a receiver or administrator, and there is no mechanism to prevent other parties doing so first, which could trigger the ROLR scheme and suspension processes. This contrasts with some special administration arrangements for other critical services.[84]

The existence of the ROLR scheme recognises the limitations of standard external administration laws when managing a retailer failure. The ROLR scheme complements these laws by transferring the customers of the failed retailer to another retailer(s) who become responsible for the customers.

Where a large retailer is under external administration, the consequences of an administrator's decisions could have a major effect on the NEM's financial stability. The likelihood of an administrator choosing to cease the trade of a large, insolvent retailer is uncertain. Whether or not this would occur, and to what extent, would depend on a broad range of variables and the unique circumstances at the time. Irrespective of the probability of an administrator electing to cease trading, it is important to be prepared by having appropriate response mechanisms in place to prevent or resolve potential adverse effects on the NEM's financial system. In Chapter 7 alternatives to standard forms of external administration and the ROLR scheme are considered that could be more appropriate for a situation of a large participant failure.

5.4 Suspension and security of supply issues

5.4.1 Description

A situation of financial distress in the NEM may coincide with physical supply problems. For example, default may cause security of supply concerns if the failing participant owns generation assets.

In the case of a vertically integrated participant, a suspension from the NEM could cover both the retail and the generation sides of a business. The ROLR scheme does not provide a mechanism for maintaining the operation of the generation assets the business may also hold.

This raises the question whether it is possible under the NER to enable generation assets keep operating in the market while the company is under external administration.

In the case of market suspension, the NER require that the suspension notice specify the date and time from which a participant is suspended from trading, *and the extent of*

84 For more detail, refer to chapter 7.

that suspension.[85] Similarly, the NER stipulate that, from the time of suspension that AEMO includes in a suspension notice to a participant, the participant is ineligible to trade or enter into any transaction in the market *to the extent specified* in the notice.[86]

The following decisions may also need to be considered to secure physical supply:

- AEMO could decide to issue a direction on the generator to maintain or increase its power output;[87] 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.[88]

In extreme circumstances, AEMO may decide to suspend the spot market in a NEM region.

In the second interim report the Commission established that the NER is not clear on the scope for keeping generation assets operating in the market if the participant is under external administration.[89]

5.4.2 Stakeholder submissions

In its submissions to the stage one option paper and the first interim report, AEMO raised concerns about the implications of a retailer failing when it is part of a vertically integrated business.[90] AEMO noted that, if the entire business was suspended from the NEM due to insolvency, then the generation arm would not be able to trade in the market. AEMO argued that there is a material risk of a reduction in NEM supply during the wind-up of a vertically integrated business, with consequential high prices and the possibility of financial contagion.[91]

AEMO noted that if the generation component of the business is not suspended, then the generator could keep operating while the business is insolvent, possibly under the management of an administration agent, and after breaking the inherent hedge the generation might have had with the business' retail load.[92] AEMO noted that there is

85 NER, clause 3.15.21(c).

86 Ibid, under (g).

87 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.

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

89 AEMC, Second interim report, NEM financial market resilience, August 2014, p57.

90 AEMO submission to the stage one options paper, 20 March 2013, p1.

91 Ibid, p5.

92 Ibid, p3.

no guarantee the insolvency official would decide to continue to trade the generation capacity.

AEMO suggested that any comprehensive contagion mitigation framework must deal explicitly with any generation that is being operated by the failing business.[93] 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.[94]

EnergyAustralia agreed that the rules give rise to uncertainty as to whether a generator would be available to the market if it is part of a suspended retail group, or is itself in administration.[95] In their submission to the second interim report Origin did not agree that current arrangements preclude generators from *not* being suspended, but supported clarifying amendments to the NER.[96] Alinta expressed support for clarifying participant suspension rules to allow for a participant to continue generating when under administration as it would likely benefit both the participant and the market.[97] ERAA supported in principle amending the NER to make it clear that generation assets may continue to operated even when a retailer is suspended. It noted that the sudden withdrawal of generation capacity in the market may cause widespread business and community impacts.[98]

5.4.3 Commission considerations

In a situation of a failure of a large participant with significant generation assets, it may be desirable to facilitate the ongoing operation of the generation assets in the NEM.

Keeping the generation business operating could:

- be beneficial for avoiding further financial contagion, because:
  - suspending generation assets could lead to higher spot prices, increasing the risk for the initially unhedged ROLR(s);
  - the unhedged ROLR inheriting additional load and the unhedged generator are natural contracting partners. Not suspending the generator would therefore make it easier for the ROLR to hedge again at short notice, reducing the risk of further contagion; and
  - suspending the generation assets could result in OTC contract default. This would affect all of the generator's OTC counterparties, not only the related retail business.

93 Ibid, p6.

94 AEMO submission to the first interim report, 12 July 2013, p1.

95 EnergyAustralia submission to the first interim report, 19 July 2014, p5.

96 Origin submission to the second interim report, 25 September 2014, pp4-5.

97 Alinta submission to the second interim report, 23 September 2014, p2.

98 ERAA submission to the second interim report, 2 October 2014, p2.

- provide the administrator of the failed retail arm with a revenue stream. This could assist the administrator in meeting its obligations to the creditors of the failed retail business. It would then allow for a more orderly wind-up of the insolvent retailer. Continued trading in the NEM could also be beneficial for selling off generation assets.

The NER are not clear on the scope for keeping generation assets operating in the market if the participant is under external administration.

The NER do not contemplate the default and suspension of a gentailer and, in particular, the subsequent decision by AEMO to suspend the business, or a portion of it, from participating in the NEM.

Part of the uncertainty regarding AEMO's powers concerns the relationship between the suspension and the prudential provisions contained in the NER. The prudential provisions in the NER require that a participant may not be under external administration.[99]

Therefore this clause may not permit the ongoing operation of generation assets which are part of a registered entity that is under external administration, even if those assets would not have been suspended from the market by AEMO. In turn, this may compound system instability in these circumstances.

Chapter 9 sets out recommendations to amend the NER to clarify when a participant that is subject to administration could continue to operate in the NEM.

The Commission also notes that AEMO's power to direct a generator to increase its output in response to a situation of potential shortfall of supply may be of limited effect in situations where the failing participant has gone into external administration.

First, it is unclear under the current rules whether generation assets of a participant that is under external administration could keep operating in the market, even if not suspended by AEMO. This may mean it is uncertain how any output generated under a direction power could be settled in the settlement process.

Second, even if the generator could remain operating in the market once under external administration, a direction by AEMO under the NER to continue trading may conflict with the responsibilities and liabilities of an external administrator under the Corporations Act.

Under the Corporations Act, the administrator of the company under external administration could be personally liable for continued trading. Depending on the circumstances, the administrator therefore may choose to not accept the direction and/or decide to resign. AEMO's direction power may not be effective in that case. This may be different if the administrator decided the benefits of continuing operation would be likely to outweigh the costs, including potential liabilities.

99 As defined in the Corporations Act or under a similar form of administration under any laws applicable to it in any jurisdiction. See NER, clause 3.3.1(b).

If AEMO's direction powers are not effective, the market may have to rely on the emergency powers to continue supply of electricity. Depending on the circumstances, this could be an extreme response.

6 Responding to a large participant failure

The failure of some market participants could threaten NEM financial system stability due to the size of their retail loads. These participants are referred to as "systemically important market participants" (SIMPs).

The Commission recommends the establishment of a separate framework to facilitate a timely, proportionate and suitable response to a SIMP experiencing significant financial distress or failure. The framework would centre on an objective to maintain financial stability in the NEM as a whole by minimising the impact of the failure of a SIMP on consumers and the market in accordance with the NEO and NERO. The current arrangements, appropriately enhanced by our recommendations in this report, would apply to other participants.

The framework would gather to a single decision-making point all the decisions that would make up the response to a SIMP failure, broadly encompassing:

- whether to allow the SIMP time to rectify its financial situation, subject to certain conditions. This would enable all viable market-based solutions for resolving the situation to be explored before any regulatory arrangements may have to be applied, as compared to the existing arrangements for responding to a participant failure; and
- if it is clear that the SIMP can no longer meet its financial obligations and a market-based solution to the problem is not viable, a choice between applying the current arrangements including the ROLR scheme or an alternative arrangement.

Given the nature of such a situation, decision-making is best held by a body that has overall responsibility for the market. Under the current NEM governance arrangements, government is best placed to make these decisions. It has responsibility for the market as a whole and can take into account the factors and considerations relevant to the circumstances, including the impacts that such a failure could have on the broader economy.

Clear lines of accountability at a single decision-making point are required. Due to the national character of SIMPs, the Chair of the COAG Energy Council should be the ultimate decision-maker, in close cooperation with State and Territory energy ministers. Where the Chair of the COAG Energy Council considers it appropriate to do so, decision making could be delegated to an alternative person. The existing market regulatory bodies would advise the Chair of the COAG Energy Council on appropriate responses and relevant factors to consider, using their existing information gathering powers.

It is recommended that the COAG Energy Council commission jurisdictional energy departments to undertake work to develop the necessary legislative amendments and rule changes needed to implement this framework. A draft scope of work for the implementation of this framework is in Appendix D.

The previous chapters explained:

- how the failure of some participants could threaten NEM financial system stability because of the size of their retail customer load; and
- that current arrangements would not be adequate to manage and respond to the failure of a large participant. This is because the current arrangements do not permit all relevant issues to be considered, lack flexibility, do not provide a comprehensive and co-ordinated decision-making framework, and are unclear as to how governments' interests would be taken into account.

Large participants are referred to as "systemically important market participants" (SIMPs). This chapter makes recommendations for establishing a new framework to manage and respond to a SIMP experiencing significant financial distress or failure. For participants not falling into this category, the current decision-making arrangements would continue to apply.[100]

The recommendations in this chapter are made at the principle level. To progress this proposal further, a number of significant implementation questions would need to be addressed. Some of those questions are highlighted in section 6.4. The Commission suggests that the implementation of this framework be considered by jurisdictional energy departments. A draft scope of work for the implementation of the SIMP framework is set out in Appendix D.

6.1 Defining market participants as 'SIMPs'

Overview of final recommendation

The Commission recommends that participants with large retail loads be classified as 'SIMPs' because their failure could cause significant and immediate financial disruption to the electricity market and would likely threaten NEM financial system stability by triggering financial contagion.

In this classification, the key criterion is whether the failure of the participant would put at risk NEM financial system stability because of the volume of retail customers' load that would have to be transferred to other participants.

The criteria used to classify SIMPS should be reviewed periodically having regard to factors such as industry structure and regulatory changes.

Identifying SIMPs prior to a SIMP experiencing significant financial distress or failure would enable policy responses to be better designed and targeted in managing threats to NEM financial instability.

100 To the extent that they are adopted, our proposed changes to the ROLR scheme and NER set out in Chapters 8 and 9 would apply.

In the second interim report the Commission proposed that the classification of SIMPs would be done on the following:

- SIMPs would be defined as those participants with large retail loads whose failure would cause significant and immediate financial disruption to the electricity market and threaten NEM financial system stability by triggering financial contagion.
- The main criterion to be used to identify a SIMP would be the size of the participant's retail load. This would refer to the number, consumption level and load profile of its retail customers that would have to be transferred to other participants in the case of a failure.
- Other criteria would also be relevant. For example, ownership and the extent of operations across the NEM should also be taken into account.

In their response to the second interim report, GDFSAE supported the proposed classification of large retailers as SIMPs. They noted that SIMP definitions should be considered carefully to ensure gradually growing retailers would not be affected by a sudden increase in compliance burdens if they crossed a certain customer or load threshold.[101] Stanwell did not agree with the designation of SIMPs because they do not support treating large participants differently from smaller participants.[102]

The criteria for SIMP classification would need to be reviewed periodically. Changes in areas such as industry structure or regulatory reforms may alter the types of participants that are systemically important. The criteria that are considered to be relevant in the current circumstances are described below.

Overview of the criteria of systemic importance

1. Retail load

As explained in section 3.7, threats to NEM financial system stability could occur if the failure of a large participant triggers the need to transfer a large retail load under the ROLR scheme.

The extent of a participant's retail activities is therefore a key factor in assessing systemic importance. The larger the participant's share of the retail market, the more difficult it is for that share to be quickly absorbed by other participants in a timely manner without resulting in further failures.

This criterion would require looking at whether the application of the ROLR scheme would impose substantial financial liabilities on the likely ROLR(s), which could put the ROLR(s) at risk of financial failure.

101 GDFSAE submission to the second interim report, 25 September 2014, p2.

102 Stanwell submission to the second interim report, 25 September 2014, p3.

This assessment would be done on the basis of the liabilities accruing under a revised ROLR scheme that incorporates the changes recommended in Chapter 8. The additional financial liabilities could also be assessed under a range of credible pricing scenarios.

2. Other factors

In addition to size, other factors may also be relevant in classification of participants as systemically important. Two additional factors might be:

- the extent of participation at a NEM-wide level: there could be some participants with substantial presence within one jurisdiction. The failure of such participants may not threaten financial system stability in the NEM, given the likely magnitude of the financial liabilities placed on other participants;[103]
- ownership: any participant that is state owned would not be captured by the definition of 'systemically important'. This is because ownership by Australian state or territory governments would generally be accompanied by a sufficient level of support to prevent the participant from failing.

More details about the proposed procedure for classifying SIMPs are included in section 6.2.4.

Participants have different corporate structures.[104] Differences in corporate structures will also be reflected in different NEM registrations with AEMO for various activities. Therefore, there is a question of how the SIMP classification should reflect the different ways businesses have organised their NEM activities.

The Commission considers the assessment of whether a participant qualifies as a SIMP should take place on the basis of the totality of a participant's relevant NEM activities, regardless of how they are organised, structured or registered. This would remove any incentive to re-organise a corporate structure to escape SIMP classification.

103 Participants with large share of generation capacity within one jurisdiction could pose a risk to system security. We note that there are existing emergency arrangements to deal with the physical supply risks of participant failure.

104 For example, retail and generation activities may be organised in different ways within the overall corporate structure (for example, within the same corporate entity or within separate corporate entities), and there may also be differences in how activities are organised for various NEM regions (for example, separate entities dealing with activities for different regions or activities across multiple regions organised within the same entity).

6.2 SIMP failure response framework

> **Overview of final recommendation**
>
> The Commission recommends that a separate framework be established for responding to, and managing, a SIMP experiencing significant financial distress or its failure (collectively referred to as a SIMP failure).
>
> The purpose of the proposed framework would be to facilitate a timely, proportionate and suitable response to a SIMP failure.

The Commission recommends a separate decision-making framework be established for responding to, and managing, a SIMP failure.

The purpose of the proposed framework would be to facilitate a timely, proportionate and suitable response to a SIMP failure by:

- establishing a clear objective that would guide decision-making on the appropriate response to a SIMP failure;
- establishing clear and accountable decision-making at the appropriate level;
- enabling flexibility for all relevant issues to be taken into account when responding to a SIMP failure, including the physical and financial stability of the NEM and wider considerations regarding, for example, consumer and investor confidence in the sector, and impacts on competition and industry structure, and impacts on the broader economy;
- facilitating and supporting coordination and cooperation between relevant organisations; and
- pooling all expertise and information necessary to enable a comprehensive assessment and make informed decisions.

A clear and well established framework which is in place prior to the failure of a SIMP would provide greater confidence in the stability of the NEM. It would also reduce uncertainty about how government and market bodies would respond and how risks are shared by stakeholders. The costs to government of responding are also likely to be lower than if no prior planning is undertaken ahead of a SIMP failure.

This final recommendation aligns with the draft recommendation in the second interim report. In their response to the second interim report, AEMO, AER and GDFSAE supported the introduction of a SIMP failure response framework.[105] AEMO

105 Submissions to the second interim report by AEMO, 21 October 2014, p1; AER, 25 September 2014, p3; GDFSAE, 25 September 2014, p2.

emphasised that forward planning and preparation are essential to enable the orderly resolution of a SIMP failure.[106]

Several stakeholders did not support the creation of a separate failure response framework for large participants because:

- in their view, the probability of a large participant failing was low and therefore a special framework was unnecessary;[107]
- administration and insolvency in the electricity sector should not be treated differently from any other sector in the economy;[108]
- the introduction of such a framework implies that these large participants are "too big to fail" which could introduce moral hazard, and possibly market distortions, if NEM participants believe that the government would intervene in a failure;[109] and
- a belief that participants, whether small or large, should be allowed to succeed or fail on their own merit.[110]

The Commission notes the concerns raised by stakeholders but continues to consider that an alternative framework is required to respond to the failure of a large participant, because of the impacts that such a failure would have on broader financial system stability in the NEM. The current arrangements, even with the proposed changes to the ROLR scheme discussed in Chapter 8, may also be inadequate to address the failure of a participant with a large retail load due to the size of financial risks and obligations that would be imposed on the ROLR(s).

The Commission notes that the recent Financial System Inquiry has made similar recommendations in the context of the failure of a financial institution in acknowledging that alternative arrangements may be required “where system-wide failure is threatened”.[111] Further, other sectors of the economy, such as the Australian insurance sector, are already subject to alternative administration and insolvency arrangements to allow broader system stability considerations to be taken into account.[112]

As any regulatory arrangements would only be applied where there had been sufficient time for viable market based solutions to be explored, the Commission

106 AEMO submission to the second interim report, 21 October 2014, p1.

107 AFMA submission to the second interim report, 3 October 2014, p3.

108 Alinta submission to the second interim report, 23 September 2014, p2.

109 Submissions to the second interim report by AFMA, 3 October 2014, p3; Alinta, 23 September 2014, p3; EnergyAustralia, 3 October 2014, p3; Stanwell, 25 September 2014, p3.

110 Submissions to the second interim report by Alinta, 23 September 2014, p3; ESAA, 26 September 2014, p2.

111 The Financial System Inquiry (Murray) - Final Report, 7 December 2014, p38.

112 For further details of this scheme see: Allens, *Dealing with financial distress in the national electricity market, special administration scheme for electricity retailers*, 10 May 2013, p77.

considers that the risks of moral hazard arising are limited. However, the Commission agrees that the implementation of any framework needs to be carefully considered to avoid any perceptions that large participants are "too big to fail". Market arrangements should not foster any perceived expectation that governments would support participants when risks to financial stability in the NEM occur. This principle was also recently highlighted by the COAG Energy Council which noted that it did not support providing assistance for generators to exit the NEM.[113]

6.2.1 SIMP failure response objective

> **Overview of final recommendation**
>
> The Commission recommends that decision-making in response to a SIMP failure be guided by a clear objective to maintain financial system stability in the NEM as a whole by minimising the impact of the failure of a SIMP on consumers and the market in accordance with the NEO and NERO.

Given the potential effects of a SIMP failure on the electricity market, there needs to be clarity around what the overriding objective would be when responding to and managing a SIMP failure.

The Commission proposes that this guiding objective should be to maintain financial system stability in the NEM as a whole by minimising the impact of the failure of a SIMP on consumers and the market in accordance with the NEO and NERO (SIMP failure response objective).

The focus would be on the stability of the market as a whole; the objective is not to prevent an individual participant from failing or leaving the market. The references to the NEO and NERO are consistent with decision-making under the NEL and NERL. They also enable longer term considerations to be taken into account such as the need for an ongoing, sustainable market.

This type of objective would require several factors to be considered, including:

- the continuity of retail supply to customers served by the failed SIMP under reasonable terms and conditions, including the activities needed to support retail supply;
- the impact of the failure on other participants and how that impact might be minimised;
- the need for non-viable businesses to exit the market in an orderly manner;
- efficient allocation of risks to those parties best able to manage them;
- market disciplines and incentives, so that there is not an undue reliance on or expectation of government intervention and/or funding;

113 COAG Energy Council. Meeting Communique, 11 December 2014, p1.

- consumer and investor confidence; and
- the effect on competition and industry structure in the NEM.

In their submission to the second interim report, GDFSAE noted their support for a SIMP failure response framework was conditional on an overall objective to maintain system stability.[114] Stanwell stated that "having regulatory bodies bound to consider the stability of the NEM as their primary decision making driver could do more harm than good". This is because a SIMP failure is likely to be complex and could be at relatively short notice, and "may very well originate outside of the NEM".[115]

The Commission considers that its recommended SIMP failure response objective is sufficiently broad to allow all relevant factors to be considered. The Commission's recommendation set out below to elevate decision making to the government level would also provide flexibility for the decision maker to take into account all relevant factors. Further, the Commission notes that while the causes of a SIMP failure may arise from a range of different circumstances, the impacts of a SIMP failure and therefore the required response, would be similar in terms of the need to maintain NEM financial system stability.

6.2.2 Single point decision-making

Overview of final recommendation

The Commission recommends that all of the decisions on the management of, and response to, a SIMP failure be gathered to and made at a single decision-making point. To facilitate this, decisions regarding suspension and revocation of retail authorisations that are currently taken by AEMO and the AER would also be made at that single decision point.

This final recommendation corresponds with the second interim report draft recommendation to have a single decision-making point in the event of a SIMP failure.

In their submission to the second interim report, the AER agreed that a single decision-maker responsible for intergovernmental co-ordination may be appropriate where a SIMP fails.[116] Stanwell disagreed with single point decision making because it could risk the independence of the relevant bodies and may inhibit their ability to carry out their core functions.[117]

114 GDFSAE submission to the second interim report, 25 September 2014, p2.

115 Stanwell submission to the second interim report, 25 September 2014, p3.

116 AER submission to the second interim report, 25 September 2014, p3.

117 Stanwell submission to the second interim report, 25 September 2014, p3.

Managing and responding to a SIMP failure in a way that best meets the SIMP failure response objective would involve a number of decisions. Broadly, this would encompass the following:

- the decision whether to allow the SIMP more time to rectify its situation and explore viable market-based solutions for resolving the situation before any regulatory arrangements may have to be applied. This opportunity should only be explored as long as a SIMP is still able to meet its financial obligations; and
- the decision whether to apply the ROLR scheme or an alternative arrangement if it is clear that the SIMP can no longer meet its financial obligations and a market-based solution to the problem is not viable.

Under current arrangements, this would involve a number of different decisions to be made by different bodies applying varying criteria. It is recommended that these decisions be made at a single decision-making point to address the potential for inconsistency. This would include:

- decisions regarding participant default and suspension made by the AEMO under the NER, and
- decisions regarding the revocation of retail authorisations and the application of the ROLR scheme made by the AER under the NERL.

Where these decisions are made under state laws, the current jurisdictional decision-makers would continue to make these decisions. Similarly, ASIC would remain responsible for the decision on whether to cancel a SIMP's AFSL.

The Commission considers that its recommended decision making framework is able to co-exist with the core functions and decision making by regulatory bodies, as this alternative framework would only be applied in the event of the failure of a SIMP. Further, the roles and responsibilities under the SIMP framework would need to be clearly articulated in law to clarify when decision making would be transferred from regulatory bodies and elevated to a single point.

It is recommended that decisions to classify participants as 'SIMP' should be made at the same single decision-making point.

6.2.3 Decision-making at the appropriate level

Overview of final recommendation

The Commission recommend that all of the decisions on the management of, and response to, a SIMP failure be made at the government level.

There needs to be a single decision-maker within government to ensure accountability and transparency for managing and responding to a SIMP failure event. The Chair of the COAG Energy Council, the federal minister with portfolio responsibility for energy, could be responsible for making such decisions. These decisions would be made in close cooperation with jurisdictional energy ministers. Where the Chair of the COAG Energy Council considers it appropriate to do so, decision making could be delegated to an alternative person.

There are precedents of regimes where decision making is elevated to manage crises or allow broader policy considerations to be taken into account. Box 6.1 sets out two case studies to illustrate examples of elevated decision making in defined situations and the relevance of such regimes to our proposed recommendations to address the failure of a SIMP. Further details on these case studies are set out in Appendix F.

Box 6.1: Case studies where decision making is elevated

Case study 1: The Swiss Financial Market Supervisory Authority

The Swiss Competition Commission (SCC) is responsible for determining whether mergers or combinations are to be approved or prohibited. However, where a bank merger might be the result of a failure of one of the merged parties, a merger decision can be elevated to the Financial Market Supervisory Authority (FINMA). FINMA can allow a merger to proceed to give priority to the interests of creditors that might normally be rejected purely on competition grounds. The FINMA can also accelerate the process and provide conditional approval even before the full merger notification is made. FINMA must invite the SCC to provide a submission to it when FINMA exercises the SCC’s power.

While there have been banking mergers in Switzerland since the legislation was introduced, FINMA has not invoked its powers to make these merger decisions.

Comparison to Commission's recommendation

The main similarities between this case study and the Commission's SIMP framework are:

- Elevated decision making is used to allow broader community impacts to be considered.
- Greater flexibility is provided to the elevated decision maker to exercise powers more swiftly.
- There is a single decision making point.
- The normal decision maker has the ability to provide advice to the elevated decision maker.[118]
- The normal decision maker cannot limit or frustrate the decision of the elevated decision maker.
- The elevated decision maker has power to decide when to take over decision making from the normal decision maker.

Case study 2: Michigan local government financial emergency management

The Michigan Governor has the power to declare a financial emergency in a municipality of the State. Once declared, one of the ways the emergency can be managed is to appoint an "emergency manager". The emergency manager can "act for and in the place and stead of the governing body and the office of the chief administrative officer of the local government." That is, they assume all the powers of the City Council and the Mayor combined.

Since 1990, emergency managers have been appointed to restructure the finances of nine Michigan municipalities, including the City of Detroit during the Global Financial Crisis. In addition, the school districts of Detroit, Highland Park and Muskegon Heights are currently operating under emergency manager control.

<u>Comparison to Commission's recommendation</u>

The main similarities between this case study and the Commission's SIMP framework are:

- Elevated decision making is used to respond to significant financial instability.
- There is a single decision making point.

The normal decision makers also maintain a limited ability to influence some of the key functions of the emergency manager such as the borrowing of money and decisions around collective bargaining agreements for government employees.

118 See section 6.4.2 - the role of the "NEM Resilience Council".

Given the extreme nature of a SIMP failure, decision-making is best held by a body that has overall responsibility for the NEM. The government best fits that description under the current NEM governance arrangements. It has responsibility for the market as a whole and can take into account the factors and considerations relevant to the circumstances. More specifically:

- Financial system stability considerations are broad and complex. The decisions would also be national in dimension. Governments would be in a better position to consider all these issues compared to market and regulatory bodies.
- None of the existing market or regulatory bodies has overall responsibility for financial system stability in the NEM as part of their defined functions.
- The circumstances of a SIMP failure are likely to be unique in each situation. This means that the resolution of a SIMP failure could not occur on the basis of a pre-defined 'formula'. Governments would be best placed and would have greater flexibility to exercise judgement in each case, particularly within the short timeframe that is likely to be required.
- The decisions would also be politically and commercially sensitive and have substantial implications for consumers and participants other than the failed participant. There is a clear role for government in responding to broader consumer and market concerns and maintaining confidence.

Within this decision-making framework, there ultimately needs to be a single decision-maker to establish clear accountability and for transparency. The Commission consider that the Chair of the COAG Energy Council (the federal minister with portfolio responsibility for energy) could ultimately be responsible for making these decisions because of the national attributes of a SIMP's business operations. Where the Chair of the COAG Energy Council considers it appropriate to do so, this responsibility could be delegated to another person. This could potentially allow decision making to be made in a more agile and focussed way. However, the delegate would need to have access to the same powers, resources, and advice as the Chair of the COAG Energy Council to enable them to make the required decisions in a timely manner.

The Minister or their delegate would cooperate closely with the state energy ministers of the jurisdictions that are affected by the SIMP failure when applying the decisions and also to coordinate responses across the jurisdictions.

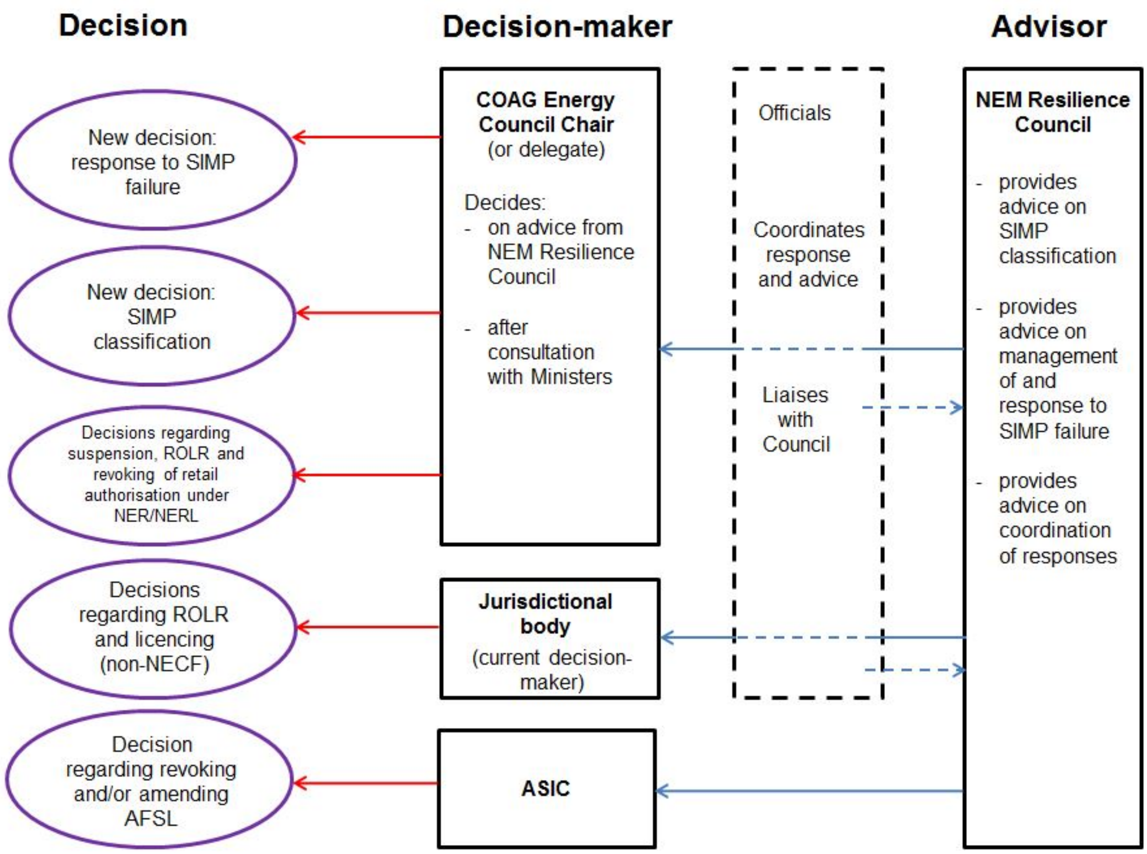
In their submission to the second interim report, GDFSAE stated that the COAG Energy Council Chairperson would seem the appropriate choice as the government single decision-maker in the event of a SIMP failure.[119] EnergyAustralia noted that the Commonwealth Treasurer would be the more likely candidate for deciding whether or not to intervene if a SIMP fails.[120]

Figure 6.1 illustrates the decision-making framework in the event of a SIMP failure.

119 GDFSAE submission to the second interim report, 25 September 2014, p2.

120 EnergyAustralia submission to the second interim report, 3 October 2014, p6.

Figure 6.1 Decision-making in the event of a SIMP failure



6.2.4 Advice and coordination - the role of the NEM Resilience Council

Overview of final recommendation

In the event of a SIMP failure, the Commission recommend that relevant market bodies provide advice in a coordinated way through a 'NEM Resilience Council' using their existing information gathering powers to assist government decision-making.

The Council would:

- assess and advise government on which participants meet the classification of a 'SIMP';
- advise on the best course of action where a SIMP has failed; and
- consider potential risks to financial stability in the NEM on an ongoing basis.

This final recommendation to establish a NEM Resilience Council is aligned with the draft recommendation in the second interim report.

In submissions to the second interim report establishing a NEM Resilience Council was supported by AEMO, AER and GDFSAE.[121] AER noted that the NERL already contains descriptions of 'events and circumstances' that would be appropriate triggers to convene the NEM Resilience Council.[122] GDFSAE noted the importance of ensuring the NEM Resilience Council acted transparently and consistently.[123]

Several stakeholders opposed forming a NEM Resilience Council for the following reasons:

- a NEM Resilience Council does not need to be formalised because the relevant organisations can already plan in advance by establishing or enhancing SIMP failure protocols;[124]
- a new council will impose new regulatory burdens;[125]
- a NEM Resilience Council would likely be slow and inflexible;[126]and
- any intervention initiated on the advice of a NEM Resilience Council may impede the ability of participants to absorb a SIMP failure financial shock.[127]

AGL and Origin proposed industry representation on a NEM Resilience Council to provide specific market expertise.[128]ESAA stated that the membership of a NEM Resilience Council be limited to those organisations that already need to make decisions when a market participant fails.[129]

At the time of a SIMP failure, it would be critical that decision-making is swift and well-informed. The Commission recommends that the relevant market bodies provide advice in a coordinated way through a 'NEM Resilience Council' to assist government in making the decisions that best meet the SIMP failure response objective.

The NEM Resilience Council would help government to be as well prepared as possible. This includes assisting government:

- to be fully informed of all the considerations - including energy and financial matters - associated with a SIMP failure;

121 Submissions to the second interim report by AEMO, 21 October 2014, p1; AER, 25 September 2014, p3; AGL, 25 September 2014, p3; GDFSAE, 25 September2014, p2.

122 AER submission to the second interim report, 25 September 2014, p3.

123 GDFSAE submission to the second interim report, 25 September 2014, p2.

124 Submissions to the second interim report by EnergyAustralia, 3 October 2014, p6; ERAA, 2 October 2014, p2; ESAA, 26 September 2014, p2; Origin, 25 September 2014, p5.

125 AFMA submission to the second interim report, 3 October 2014, p2

126 Submissions to the second interim report by AGL, 25 September 2014, p3; EnergyAustralia, 3 October 2014, p6.

127 Alinta submission to the second interim report, 23 September 2014, p3.

128 Submissions to the second interim report by AGL, 25 September 2014, p3; Origin, 25 September 2014, p5.

129 ESAA submission to the second interim report, 26 September 2014, p2.

- by providing the appropriate expertise; and
- by providing a point of contact from which to seek further information.

The Council would:

- coordinate advice to government on the best course(s) of action in the event of a SIMP failure consistent with the SIMP response objective, and any other advice as required at the time; and
- consider potential risks to financial system stability in the NEM on an ongoing basis.

It would also advise government on which participants should be defined as 'SIMP'. The Council would perform these functions using their existing information gathering powers. No new powers to collect information are proposed for the Council members.

The membership of the NEM Resilience Council would consist of existing market bodies that need to be directly involved in the event of a SIMP failure:

- AEMC;
- AER;
- AEMO; and
- ASIC.

The Council would:

- bring together the expertise and information resources of these organisations that are needed to provide government (including jurisdictional governments and decision makers where relevant) with the best advice. Inclusion of these bodies within the Council would also improve the quality and coordination of decision-making. The Council could also consult other relevant bodies such as the Australian Competition and Consumer Commission(ACCC), AFMA and the ASX. In addition, it could engage the assistance of experts in the fields of business, banking, insolvency, finance or other areas; and
- be expected to consult and cooperate with relevant state agencies where necessary, for example to facilitate or complement existing ROLR and energy security response mechanisms.

Where considered appropriate, the Council could also consult with industry representatives to assist their understanding of the potential risks to financial system stability. However, the Commission notes that confidentiality concerns may limit the extent to which the Council can consult with industry in developing its advice or in the response to a specific SIMP failure.

One or more of the member bodies of the Council could establish a secretariat to provide the Council with the necessary administrative support.

The Council members would need to have the mandate to perform the functions contemplated here, and to share amongst each other the information each of them currently has access to under their existing provisions. To provide clarity and certainty on these issues, there would be merit in anchoring the functions, including the sharing of information, of the Council and its members in relevant legislation.

As the proposed functions of the Council would be a logical extension of the roles of each Council member, the Commission does not consider that the Council would detract from each member’s core functions. Further, the Commission notes that the members of the Council are well placed to undertake this work due to the information they have access to and the expertise of their staff. The Council would also have the ability to obtain further advice and expertise as required.

The proposed functions of the NEM Resilience Council bear some resemblance to those of the Council of Financial Regulators, which is the high-level forum for cooperation and collaboration among Australia's main financial regulatory agencies (APRA, ASIC, the RBA) and the Treasury. The role of the Council of Financial Regulators is to contribute to the efficiency and effectiveness of financial regulation and to promote stability of the Australian financial system. This is achieved by the members sharing information and views on financial sector conditions and risks, discussing regulatory reforms and, if the need arises, coordinating responses to potential threats to financial stability.[130]

To advise on SIMP failure response

Elements of the Council's advice could include:

- the Council's considerations as to whether and how the transfer of customers could take place under the ROLR regime without a risk of further cascading failures;
- implications for other participants;
- implications for the financial sector and its funding of the energy sector;
- the appropriate approach for any generation assets the SIMP may hold;
- the Council's considerations regarding whether the SIMP should be suspended from the market or whether (parts of) a SIMP's activities could remain operating in the market. Also relevant here would be the Council’s views on whether other licences/authorisations should be revoked; and
- proposals for maintaining consumer confidence, and information campaigns, in a way that is nationally consistent and coordinated.

130 See the website of the Council of Financial Regulators: www.cfr.gov.au.

The Council's advice could contain options for managing the SIMP failure, with relevant cost/benefit analysis for each of these options.

Government would be required to take the Council's advice into account when deciding on the appropriate response to a SIMP failure.

An example of how the SIMP failure framework and the NEM Resilience Council's functions could work in practice, is discussed in section 6.3.

To consider potential risks to financial system stability in the NEM on an ongoing basis

There could be merit in a function for the NEM Resilience Council to monitor and consider potential risks to financial system stability in the NEM on an ongoing basis.

A good understanding about risks to financial system stability in the NEM would enable the Council to build up knowledge and expertise, and be better prepared to advise government when a SIMP failure occurs. The Council could decide that it should meet on a regular basis to discuss issues and trends in the energy market that are relevant from the perspective of financial system stability in the NEM. This could allow for more agile and considered advice by the Council, which could, in turn, improve the speed and quality of the response from government to a SIMP failure.

The Council could also assist in preparing the communications to the market and consumers about the government's response to assist in more considered, targeted, and swifter communications. The Commission also notes that a swifter response would assist industry participants in managing their response to the SIMP failure.

The Council would advise government on necessary refinements of the framework for responding to a SIMP failure, including the appropriate response tools, if developments in the market would make such adjustments necessary.

As noted above, where possible and appropriate, the Council could draw on existing expertise and work undertaken by, and information available to, the Council's members. As the Commission is not proposing to establish separate information obligations on participants for this purpose, a limited regulatory burden would be imposed on market participants as a result of the establishment of the Council.

To assess and advise on which market participants should be defined as 'SIMP'

As mentioned in section 6.1, those participants which can be categorised as 'systemically important' would need to be classified as such. The NEM Resilience Council would provide its advice on which participants should be classified as 'SIMPs' to government, who would make the decision.

SIMP classification would take place on the basis of the criteria outlined in section 6.1, as adjusted from time to time.

The Council would conduct its assessment on the basis of publicly available information and information already available to members of the Council.

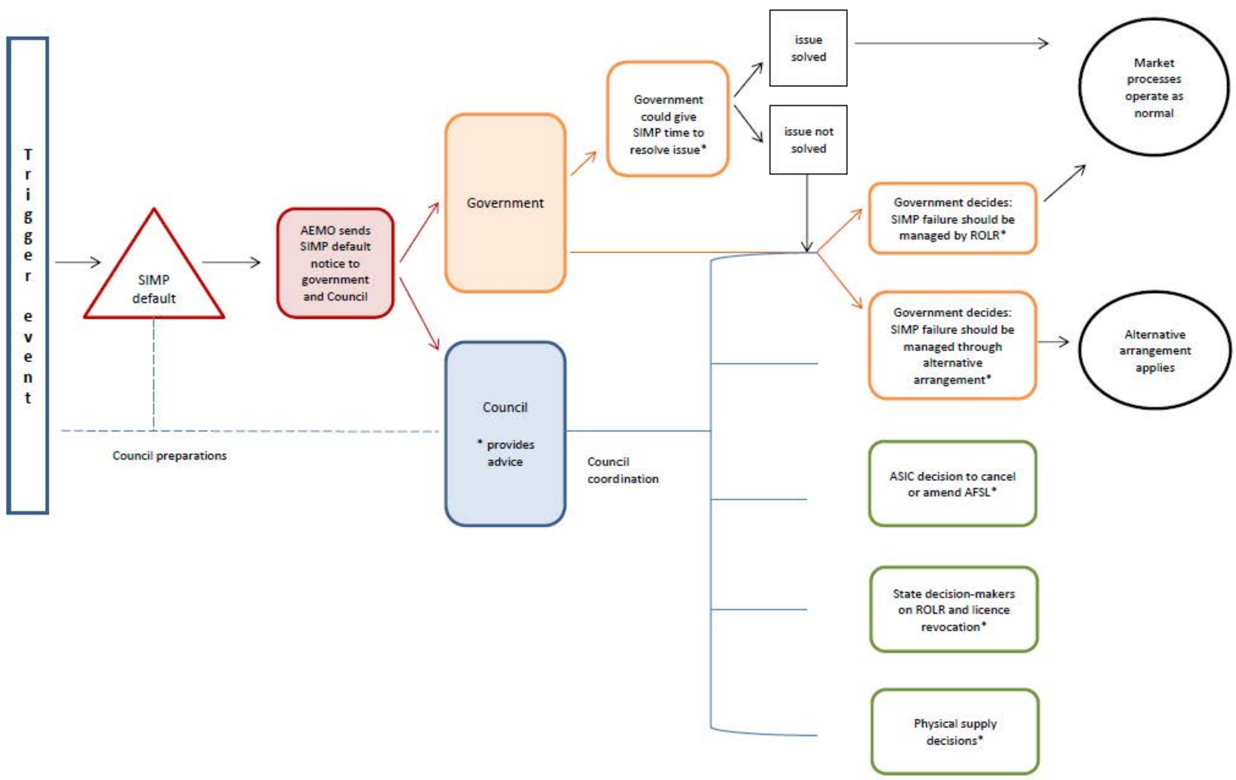
The Council would have no powers to compel the provision of information. Participants would not be required to provide information. The NEM Resilience Council would inform those participants which it proposes to recommend to government to be classified as 'SIMPs', and provide an opportunity for those participants to provide their views in response. Those participants could also make a submission on the proposal to government if they believed their SIMP classification was not appropriate. At any point, whether to the NEM Resilience Council or directly to government, participants could provide confidential information to challenge that proposal.

The Council would also advise government on whether there is a need to adjust the criteria for SIMP classification, as a result of changes in the market structure over time.

6.3 The SIMP failure response framework in practice

This section describes, at a high level, how the SIMP failure response framework could apply. It assumes a likely course of action for a SIMP failure, commencing with a default by the participant under the NER. In this example, the trigger event for the SIMP decision making framework is an event which could lead to a default notice being issued in the spot market. Figure 6.2 outlines how this framework could be applied in response to this trigger event.

Figure 6.2 SIMP failure response framework



In practice the decisions that would need to be made by government would be highly dependent on the circumstances of the SIMP failure as well as the state of the wholesale electricity market at the time. Therefore, it is difficult to provide precise guidance as to what decisions would need to be made in any given situation.

6.3.1 Decision on SIMP default and the appropriate way of managing a SIMP's failure

Under the proposed framework, the decisions on the management of, and response to, a SIMP failure would be made at the government level, including decisions regarding suspension and revocation of retail authorisations that are currently taken by AEMO and the AER. As discussed in section 6.2.3, decision making could be delegated by the Chair of the COAG Energy Council to an alternative person, if it was considered appropriate to do so and the delegate had access to the same powers, resources, and advice as the Chair of the COAG Energy Council.

There needs to be a clear point at which responsibility for making these decisions is shifted from the energy market bodies to government. To facilitate this, relevant market bodies would need to inform government when an event or circumstance occurs that would trigger the need for such a decision.

The point in time at which AEMO would normally issue a default notice under standard NER processes could be the point in time where decision-making responsibility shifts to government.

Under this proposal, instead of issuing a 'standard' default notice when a default event occurs in respect of a SIMP, AEMO would issue a 'SIMP default notice' to government in respect of the SIMP. The NEM Resilience Council and the SIMP would be advised of this. Like the default notice under standard NER processes, the 'SIMP default notice' would not be publicly released.

On receipt of the 'SIMP default notice', government would then become formally responsible for deciding on the appropriate next steps, including for the decision whether or not to suspend the SIMP from the market. The issuing of a 'SIMP default notice' would also formally trigger the process for the NEM Resilience Council to develop advice to government.

A similar mechanism could also be designed for the AER's decision on whether or not to revoke a SIMP's retailer authorisation. Changes to the NEL and NERL may be required to provide clarity and certainty in relation to the transfer of decision making from energy market bodies to government where a SIMP is experiencing significant financial distress.

Time provided to the SIMP to remedy the default

Once it has received a 'SIMP default notice' from AEMO, depending on the circumstances, government could decide that the participant should be granted some time in order to find a solution to the situation. This would enable time for all viable market-based solutions to be explored before any regulatory arrangements may have to be considered, as compared to the existing arrangements for responding to a participant failure.

For example, the failing SIMP may be close to finalising a corporate restructuring in response the situation. Awaiting that outcome may meet the SIMP failure response objective and avoid regulatory options for responding to the situation.

In deciding whether to grant the failing SIMP some additional time to find a solution to the situation, factors to be considered would include:

- the nature of the problem that caused the default event;
- whether the SIMP was still solvent and able to meet its financial obligations;
- the complexity of the SIMP, including the organisational structure;
- whether there was still clear and accountable decision-making within the SIMP;
- the prospective of private funding and corporate restructuring of the SIMP;
- whether the SIMP has a recovery plan in place, and the time realistically required to enact activities under such a plan; and
- the risks to the market, such as a potential payment shortfall to generators.

To reduce uncertainty and confusion in the market, and to minimise risks more generally, the time provided to the SIMP to explore options to resolve the crisis should be kept as short as possible. A maximum timeframe could be included in the framework.

The current NEM prudential framework covers a seven day period in addition to the regular 28-day settlement period. This seven day period is meant to shield AEMO from liabilities that are being accrued by the failing participant in the time it would take AEMO to suspend it from trading in the market following a default event. This may include some response time for the failing participant to remedy the default.

The current prudential framework may not provide sufficient collateral to cover an extended period. One way of funding this additional time, and minimising the risks to the wholesale market, could be to require SIMPs to provide additional credit support to AEMO. There could also be a role for government to provide funding guarantees to assist the participant to remedy the default in the short term until they are able to secure sufficient funding.

If the SIMP is able to solve the default, no further action may be required and the SIMP could revert back to current market processes. If not, government would then be required to make a decision on the response to the SIMP failure, having regard to the SIMP failure response objective.

Deciding on how the SIMP failure should be managed

In developing its advice to government on the response to the SIMP failure, the NEM Resilience Council could make an assessment of whether the normal NEM arrangements, which would mainly be the ROLR scheme, could work in the circumstances, and the effects of those arrangements.

This means the Council would assess whether application of the ROLR scheme could take place without giving rise to a risk of financial contagion. It would also assess whether another stability arrangement would be preferable. For more discussion on the alternatives, refer to Chapter 7.

6.3.2 Other decisions

Where a SIMP enters the initial stages of financial distress, causing it to breach obligations under rules or other instruments, a number of decisions may be considered by various organisations in order to send a 'warning signal' to the SIMP and/or the market.

This category of decisions would include:

- the issuing of a call notice by AEMO;[131]
- a request by ASIC to the SIMP to remedy the breach of an AFSL; and
- a request by the AER or a state regulator to remedy the breach of a retailer authorisation or licence.

These types of decisions would not result in the SIMP being suspended from the market. Instead, they are meant to provide the SIMP with the opportunity to take actions so that the breach or default might be remedied within a certain timeframe.

A change to the decision-maker for these types of decisions is not proposed. It is envisaged that the market bodies responsible for making such decisions on the NEM Resilience Council would brief other members on the situation and considerations as part of their ongoing consideration of potential risks to financial stability in the NEM.

6.4 Implementation and further work

The previous sections have outlined, at a high level, the proposed framework for managing a SIMP failure.

131 This would also include AEMO's power to 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.

If the framework was to be adopted, a number of implementation questions would need to be addressed. These include:

- the detailed methodology that should be used to classify which market participants should be SIMPs;
- if and how a government decision on SIMP classification could be challenged;
- how the objective that applies in the event of a SIMP failure could best be included in relevant legislation, including implications for the Corporations Act;
- how decisions by government on the appropriate response to a SIMP failure are made, if and how they are made public, and if and how they could be challenged before a court;
- how transfer of responsibility for decision-making in the event of a SIMP failure from energy market bodies to government could best be implemented;
- where the Chair of the COAG Energy Council seeks to delegate decision making, the process that would be used for this to occur;
- how decisions are made within the Council, the status of those decisions and the Council advice;
- how information gathered by individual Council members could be shared with other members, including confidentiality aspects;
- the role and functions of any Council secretariat;
- given the nature of the decisions and functions involved, the location for these provisions; that is, whether rules or law; and
- to the extent that any form of government funding or guarantees are required, how that would be funded and recovered.

The proposals in this chapter for a new framework for decision-making to manage a SIMP failure have been designed for the NEM, consistent with the scope of the COAG Energy Council's request for advice. Should the proposed framework be adopted, it could be considered if and to what extent the proposed framework should also apply to gas retail activities undertaken by SIMPs, because a number of participants are also active in gas retail markets.

If a SIMP failure coincides with or leads to physical supply problems, decisions may need to be made to secure a continuous supply of electricity. For example, AEMO may need to issue a direction to a generator. The Commission do not propose to change the decision-maker for these types of decisions in the situation of a SIMP failure. In implementing the SIMP failure response framework, it would be necessary to streamline the two sets of decisions.

The framework that has been proposed seeks to rely on existing decision makers and market bodies. It does not involve the creation of any new agencies, or recommend that the functions and powers of any existing agencies be broadened to include financial system stability responsibilities. It is for this reason that the Commission has recommended that government be responsible for decision making in relation to the failure of the SIMP. The Commission notes that the COAG Energy Council could also consider other alternatives, such as the opportunity to delegate decision making as has been proposed. Alternatively, a separate body could be established or the functions of an existing market body could be extended to carry out the financial system stability functions contemplated in this report.

Regardless of who makes decisions in response to the failure of a SIMP, the responsible person would need to have the necessary powers, resources and advice to make the required decisions in a timely way. The mechanism, roles and responsibilities which are used to respond to a SIMP failure also need to be established well in advance of a SIMP failure.

If the framework is to be adopted, the Commission recommends that the COAG Energy Council commission jurisdictional energy departments to undertake work to develop the necessary legislative amendments and rule changes needed to implement this framework. This is required as the proposed framework involves changes to the decision making frameworks of energy market bodies. A draft scope of work for the implementation of the SIMP framework is set out in Appendix D.

6.5 Assessment against the National Electricity Objective

The failure of a SIMP in the NEM would be disruptive for both the spot market as well as the financial contract markets underpinning it. The response to a SIMP failure would require consideration of a wide range of factors, including some outside the energy market. Various governments and market bodies would need to be involved to develop the response that is most appropriate under the circumstances.

Experiences from other sectors of the economy ranging from insurance to childcare suggests that the absence of a planned response to the failure of a large market participant can result in major disruptions to the community and a less than effective response.

The proposed framework would address the gaps in current arrangements by:

- consolidating decision-making at a single point, and raising it to the government level;
- incorporating into the framework new decisions to be made, namely on the best approach to manage and respond to a SIMP failure and on identification of those participants which are of systemic importance; and
- bringing together the necessary information and expertise.

This proposal contains an approach for how this could be organised and formalised in practice, providing mechanisms for coordination and cooperation between government and market bodies, while providing for flexibility to deal with different situations.

The framework would promote coherent and comprehensive outcomes. It would also facilitate a timely response. Given the significant interests of both private and public sector stakeholders and the potential impacts of a SIMP failure, this framework is proportionate to such a situation.

The Commission considers that the proposed framework would contribute to more effective and efficient market operations in situations of a SIMP failure. It would improve the likelihood of minimising disruptions to customers and maintaining both the financial stability of the NEM and public confidence where a SIMP fails.

As a result, the Commission considers that the proposed framework would meet the NEO for the reasons set out above.

7 Stability arrangements

In the absence of a plan for how to manage and respond to a SIMP failure, there is likely to be pressure on the NEM's financial system stability and a potential expectation for government to intervene. The absence of a considered plan for intervention could lead to more chaotic, unplanned intervention if a crisis occurs, which may be more costly and less effective.

In the event of a retail participant failure, external administration under Australian law cannot be relied on to ensure an outcome consistent with policy objectives to minimise disruption to consumers, and to maintain financial stability in the NEM and public confidence. The ROLR scheme seeks to address this concern.

Even taking into account recommendations to improve the ROLR's effectiveness and operation, the ROLR scheme may not be effective in all situations.

For this reason, there is merit in developing an alternative tool - termed stability arrangements - which could apply when a SIMP fails. They would involve a form of special external administration or management.[132]

The detailed design and implementation of stability arrangements would be a complex exercise. It would involve a range of stakeholders, both within and outside the electricity sector, a package of legislative and regulatory changes, and the potential for significant interim funding requirements. The precise stability arrangements that apply to each SIMP would need to tailored to each participant depending on the circumstances of the SIMP's failure and the composition of the SIMP itself.

The Commission recommend that the COAG Energy Council commission jurisdictional energy departments, in consultation with Commonwealth, State and Territory Treasuries, to form a working group to develop the detailed design of stability arrangements for the NEM, incorporating a form of special external administration. A draft scope of work is provided in Appendix E.

There is merit in developing and implementing an alternative tool - termed stability arrangements - which may apply when a SIMP fails. Stability arrangements would be a complementary alternative to the ROLR scheme and external administration laws.

There is a challenge in designing stability arrangements that maintain commercial incentives on SIMPs, their creditors and shareholders, while providing a framework to minimise the risk that a SIMP failure results in widespread impacts on NEM participants and customers. This chapter provides a broad framework for developing

132 The first interim report proposed a special administration regime. This was a specific form of special external administration. We have used the term 'stability arrangements' as a generic term for special external administration, to avoid confusion. The design of the stability arrangements may not be the same as the special administration regime proposed in the first interim report.

such stability arrangements, but does not prescribe a detailed design. It highlights the potential shortcomings of current arrangements in dealing with the failure of a SIMP, and the main issues that may arise in developing stability arrangements.

7.1 Shortcomings of the current arrangements

The second interim report set out a number of shortcomings of the current arrangements to manage and respond to a SIMP failure, including that there are not enough options available. These shortcomings were examined in Chapter 5 of this report.

7.2 Developing alternative measures to respond to a SIMP failure

Given the potential shortcomings of the current arrangements, the second interim report recommended that alternative measures are needed where a SIMP fails. AEMO and AER recognised the importance of developing alternative arrangements for a SIMP failure in their submissions to the second interim report, and supported further exploration of such measures.[133]

In their submissions to the second interim report, AGL and GDFSAE commented that there is no evidence that the combination of a modified ROLR scheme and traditional insolvency measures would be inadequate in reducing the risk of financial contagion in the NEM.[134] Several stakeholders noted that the likelihood of a SIMP failure was low and therefore the costs of introducing alternative measures may outweigh the benefits.[135]

The Commission notes that the recent Financial System Inquiry has made similar recommendations to strengthen crisis management powers in the context of a financial institution failure. Noting the high costs associated with the disorderly failure of an institution, the Financial System Inquiry report stated that having "more tools in the toolkit" would maximise the likelihood that a viable option would be available in any given situation to achieve an orderly resolution of a crisis. The report also highlighted that these sorts of crisis management powers would have a limited regulatory burden in normal times.[136] Similarly, the Commission considers that stability arrangements should be developed to provide another tool for the orderly resolution of a SIMP failure where the NEM's financial stability is threatened.

133 Submissions to the second interim report by AEMO, 21 October 2014, p1; AER, 25 September 2014, p1.

134 Submissions to the second interim report by AGL, 25 September 2014, p3; GDFSAE, 25 September 2014, p2.

135 Submissions to the second interim report by EnergyAustralia, 3 October 2014, pp6-7; ERAA, 2 October 2014, p1; ESAA, 26 October 2014, pp2-3; Origin, 25 September 2014, pp4-5.

136 The Financial System Inquiry (Murray) - Final Report, 7 December 2014, pp79-81.

The Financial System Inquiry report also noted that:

> "strengthening necessary areas of the financial system now at a measured pace, rather than later, will cost less than actions to reinforce the system at a time when it is weak or where change must occur quickly.[137]"

The Commission agrees with this statement. While the likelihood of a SIMP failure is uncertain, it is best to be prepared by developing stability arrangements as a complementary alternative to the ROLR scheme and/or traditional administration. These stability arrangements will mean amending the way in which external administration laws apply to SIMPs.

Such changes should not be made lightly, given that they would likely change the way in which risks are allocated among different parties. However, where there are over-riding policy objectives that would not be met if conventional approaches are adopted, there is an argument for introducing alternative stability arrangements. In the NEM, these policy objectives include minimising disruption to consumers and the maintenance of financial stability in the NEM and public confidence. Pre-planning for a SIMP failure now would reduce the future costs of failure, maximise the chance of an orderly resolution, and increase the likelihood of any government funding being recovered.

There are precedents for establishing special forms of external administration in other sectors in Australia, as well as overseas jurisdictions, as discussed below.

7.2.1 Precedents for special external administration

In advice to the Commission, Allens noted that there are precedents for establishing specific forms of external administration to address particular industries or important national interests to deal with situations that are not able to be satisfactorily dealt with by standard forms of external administration.[138] These precedents include:

- a judicial management regime for the Australian general insurance sector. Under this regime "an external party is inserted by the court to take control of the insurer, investigate its state of affairs and determine what course of action would best serve the interests of policyholders and the stability of the financial system in Australia."[139]

- the special administration regime for energy supply companies in the United Kingdom. This regime has an objective of ensuring that the supply of gas and electricity to customers is continued until the distressed company is either

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137 The Financial System Inquiry (Murray) - Final Report, 7 December 2014, p35.

138 Allens, *Dealing with financial distress in the national electricity market, special administration scheme for electricity retailers*, 10 May 2013, p2.

139 *Ibid*, p77.

rescued as a going concern or, if this is not possible, its business is able to be transferred to one or more other companies.[140]

- a "Single Point of Entry Strategy" developed in the United States to address the potential failure of a bank holding company or other financial company, which "allows for normal liquidation arrangements to be avoided under specific circumstances", in other words "when the failure of the financial company and its resolution under the Bankruptcy Code or otherwise applicable federal or state law would have serious adverse effects on financial stability in the United States".[141]
- a special administration regime introduced in the United Kingdom banking sector.

These precedents demonstrate that policymakers in both Australia and overseas have introduced special arrangements in some sectors, if a business is insolvent (or is likely to become insolvent), and normal insolvency procedures carry a risk that the interests of customers (or policyholders or depositors) will not be met, and/or would lead to widespread financial instability.

7.2.2 Special administration regime in the first interim report

The first interim report recommended the development of a special administration regime (SAR) as an alternative to the ROLR where a large retailer fails. The SAR was a specific form of special external administration. Its objectives were to provide for continuity of electricity supply and the orderly transfer of customers to other retailers, while mitigating the risk of financial contagion. As discussed further below, the Commission now considers that the specific design of the SAR may not be the most suitable form of stability arrangement for the NEM. The Commission's own analysis, as well as input from stakeholders, have raised a number of issues for further consideration in the design of an alternative to the ROLR.

Box 7.1: Special administration regime (SAR) in first interim report

The SAR was proposed in the first interim report as an alternative to the ROLR scheme for large retailers in the NEM. It would involve a special administrator being appointed over the retailer, with the primary objective of maintaining security of supply to customers, and allowing an orderly transfer of customers to another retailer (or retailers).

Under the SAR as proposed in the first interim report, interim government funding would enable the administrator to ensure continued electricity services and continued payments for energy purchases. The administrator would seek to sell the retailer's customer contracts to other retailers, with a back-up mechanism

140 Further detail of this scheme is contained in AEMC, Options paper, NEM financial market resilience, 9 November 2012.

141 www.gpo.gov/fdsys/pkg/FR-2013-12-18/pdf/2013-30057.pdf, page 76615

to allocate any unsold contracts. Government funding would be recovered from this sale, with any short-fall recovered through a cost recovery arrangement.

The SAR would impose some up-front costs. In particular, the first interim report suggested it would be most effective if there was ring-fencing of all retailers' NEM electricity retail operations into a separate corporate entity.

Implementing the SAR would require a package of new legislation and legislative changes.

The proposal to introduce a SAR in the first interim report was supported by some stakeholders but strongly opposed by others. As well as questioning the need for an alternative to current arrangements, stakeholders also questioned whether the specific design of the SAR was appropriate. Comments in relation to the need for an alternative to the current arrangements reflected the comments provided in response to the second interim report discussed above.

The main stakeholder concerns raised in relation to the design of the SAR included:

- the up-front costs and implications of ring-fencing retail activities;
- the proposed prohibition on counterparties with contracts with the failed retailer to exercise rights of termination due solely to the appointment of the special administrator; and
- the potential cost to government of financing the SAR over an interim period; and how the costs of the SAR would be recovered.

Commission considerations and conclusions

As discussed above, the Commission continues to consider that alternative arrangements are needed to respond to the failure of a large retailer. For the reasons set out in Chapter 5, the Commission is of the view that the existing ROLR scheme and standard external administration procedures may not be adequate. The Commission also considers that the amendments to the ROLR scheme set out in Chapter 8 would also be insufficient to adequately address the implementations of a SIMP failure. In the absence of a plan for how to respond to the collapse of a SIMP, there is likely to be pressure on governments to intervene so that the initial failure of one large market participant does not lead to widespread cascading failure and instability in the NEM.

The absence of a considered plan for intervention could lead to more chaotic, unplanned intervention if a crisis occurs, which may be more costly and less effective. The failure of a SIMP in this environment could lead to uncertainty and a loss of confidence in the market, which is likely to exacerbate market instability.

While it would be possible to leave questions of government involvement until an event actually occurred, there are clear benefits in pre-planning. As discussed in Chapter 6, planning ahead of a SIMP failure would:

- provide greater confidence in the stability of the NEM, in terms of both physical supply and the financial market underlying the NEM;
- reduce the likely cost to government (and ultimately taxpayers) from intervening with no pre-planning at a time of crisis; and
- reduce uncertainty about how the government, regulators and AEMO would respond if an extreme event occurs and clarify how risks are shared by various stakeholders.

Reforms in the finance sector following the GFC have demonstrated a variety of potential approaches to address the issues that arise where a systemically-important business experiences financial distress or fails. As noted above, a range of tools are also needed to provide flexibility to respond to the specific circumstances of different events as no two SIMP failures are likely to be the same.

As discussed in Chapters 10 and 11, the Commission is not recommending the introduction of any 'preventative' measures at this stage. Reforms to make the NEM more resilient should, at this stage, be targeted to improving how the market arrangements manage and respond to a SIMP failure. As part of these reforms, the Commission considers further detailed work should be undertaken to develop and implement stability arrangements.

In particular, further consideration needs to be given to the implications of vertical integration for the design of an alternative to the ROLR for SIMPs. When the ROLR arrangements were introduced there were a number of medium-sized retailers operating in the NEM, many of which were standalone (ie, did not have generation activities). The structure of the NEM has since evolved to include a number of large vertically integrated SIMPs. As a result, the financial distress of a SIMP is likely to involve issues related to generation activities as well as retail. For this reason the operation of the ROLR scheme, or a model like the SAR that addresses only retail activities, may not be adequate to support market stability if a SIMP fails.

Further work to progress an alternative

Further work needs to be undertaken to develop stability arrangements as an alternative to the ROLR scheme when a SIMP fails. The aim of stability arrangements would be to manage and respond to the failure of a SIMP while minimising disruption to consumers, and maintaining both financial stability in the NEM and public confidence.

Given the breadth of issues raised when considering potential stability arrangements, including insolvency processes and the potential for significant funding requirements, the Commission is not making detailed recommendations about the design of suitable stability arrangements.

Any stability arrangements would require a package of legislative and regulatory changes and funding provisions, extending beyond the electricity regulatory framework. The assessment, design and implementation of stability arrangements involve a range of parties, both within the electricity sector and outside it. It also involves trade-offs between different interests which are a matter for public policy and best considered at government level.

The Commission recommends that stability arrangements - incorporating a form of special external administration - be designed and implemented to manage the failure of a SIMP where the application of standard forms of external administration together with the ROLR scheme could lead to cascading retailer default, which in turn could cause disruption to customers, loss of public confidence and financial instability in the NEM.

It is 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, incorporating a form of special external administration. This should be done in consultation with stakeholders, relevant policy departments and regulatory bodies. A draft scope of work is provided in Appendix E.

7.3 Issues in the design of stability arrangements

The framework for responding to SIMP failure set out in this chapter and in Chapter 6 aims to identify appropriate response measures to manage the failure of a SIMP, while ensuring that the services provided by a failed SIMP are not threatened (such as generation and retail services), and that the financial stability of the market is maintained.

When a business goes into traditional external administration the primary objective is usually to maximise the financial return to creditors.

The purpose of the stability arrangements for the NEM would be to manage the failure of a SIMP and to facilitate a solution that is consistent with the SIMP failure response objective set out in Chapter 6. This objective focuses on the need to maintain financial system stability in the NEM by minimising the impact of the failure of a SIMP on consumers and the market in accordance with the NEO and NERO. The stability arrangements would need to specify clear objectives to guide the decisions of the special external administrator and provide guidance to creditors and equity holders about the consequences of a SIMP failure.

Importantly, the objectives of the stability arrangements should focus on the maintenance of the *services* provided by the SIMP, not the *entity* providing those services. There should be no guarantee that existing equity holders or creditors would avoid losses.

The following sections discuss some of the issues that would arise in developing stability arrangements, including:

1. which businesses and activities should be included in the regime;
2. the changes that may be required to the legal framework and market arrangements, to support the stability arrangements;
3. options to meet any interim funding requirements;
4. how the stability arrangements are triggered;
5. what would be involved in the stability arrangements and how they would be applied; and
6. how the stability arrangements are concluded.

7.3.1 Which businesses and activities should be included?

In line with the framework set out in Chapter 6, the stability arrangements are relevant for those businesses that have been defined as SIMPs.

The focus of the stability arrangements would be the continuation of retail services to customers, including the associated activities or contracts that support the supply of retail services. These activities could include generation, hedge contracts and billing services.

Market participants adopt a range of corporate structures. Some vertically integrated participants are structured so that their retail and generation activities are operated by separate corporate entities, while others have a single entity that is registered with AEMO as both a market customer (ie, a retailer) and a market generator. NEM participants may also include other business activities in the same corporate entity (eg, LPG activities).[142]

One issue that arose in relation to the SAR was how the 'necessary' assets over which the administrator would be appointed is determined, and when this determination would be made. The first interim report suggested there may be benefits in legally ring-fencing the retail business, but that the costs and benefits of ring-fencing should be considered in more detail before deciding whether to implement a special administration regime.[143] However, the generation activities of the SIMP may also be relevant to support the continued supply of energy to customers, suggesting that both retail and generation activities may need to be included within any ring-fenced business.

142 Some NEM market participants also have activities in the gas sector, so their failure would affect the gas market as well as the NEM. Our terms of reference for this review do not extend to gas issues.

143 AEMC, *First interim report, NEM financial resilience*, 4 June 2013, p38.

Ring-fencing the necessary activities would impose a cost up front, but would likely minimise the complexity and cost imposed at the time the stability arrangements are triggered. Compared with the cost of ring-fencing retail activities alone, the cost of ring-fencing is likely to be significantly reduced where both retail and generation assets are included within the 'ring-fence', since these two activities account for the majority of activities currently undertaken by gentailers in the NEM.

An alternative would be to identify the assets necessary for inclusion in the stability arrangements at the time of failure. This would avoid any restructuring so would be less costly to market participants now, but would be likely to involve more complexity, because the assets covered by the stability arrangements would need to be identified at that time.

Furthermore, if the assets included in the stability arrangements are only identified at the time of insolvency, creditors may be uncertain about which assets are likely to be included and which are not. This could also make this approach more costly.

However, this alternative may be preferable in light of the range of corporate structures that market participants have in place. As a result, it may be difficult to identify a uniform approach to how ring fencing should occur ahead of the failure of a specific participant.

7.3.2 Changes to the legal framework and market arrangements

To support the effective operation of stability arrangements, changes would be needed to the current legal framework and market arrangements, such as:

- enabling for the SIMP to continue operating in the wholesale spot market while under external administration under some circumstances, as discussed in Chapter 9;
- new legislation to implement the stability arrangements, including:
  - the objectives of the stability arrangements;
  - the means by which stability arrangements commence;
  - specific restrictions on third parties taking actions to trigger a ROLR event without notice, including the commencement of a traditional insolvency process;
  - restrictions on third parties during the course of the stability arrangements;
  - the means by which stability arrangements conclude; and
  - provisions in respect of financial support of the stability arrangements, and any cost recovery mechanism.

Additional protections may also be considered to promote the objectives of the stability arrangements. One example is whether restrictions are placed on the rights of counterparties to terminate their OTC contracts with the SIMP when it is placed in administration. The SAR included a provision that counterparties to contracts with the SIMP should be prohibited from exercising rights of termination arising solely from the appointment of the special administrator. Without this prohibition, counterparties could terminate their hedge contracts with the SIMP, which could expose the administrator to far higher wholesale market costs of serving the SIMP's retail load, dramatically increasing the amount of funding required for the stability arrangements.

It is likely that the appointment of an external administrator would be an event of default under the wholesale contracts of an affected entity, allowing counterparties to terminate the contract. These types of termination provisions are called *ipso facto* clauses. Ipso facto clauses are, on the whole, valid and enforceable under Australian law. However, they have been subject to some criticism for being detrimental to the corporate turnaround and voluntary administration process, which is focussed on allowing a going concern to continue to trade until a plan for rehabilitation or restructuring can be put into place.[144]

Measures that restrict the rights of SIMP counterparties to terminate a contract or exercise other contractual rights are not seen in traditional forms of external administration in Australia. However, Allens note that they do exist in a limited form in Australian judicial administration and in a more detailed form in 'chapter 11' restructuring in the United States.[145]

Industry submissions to the first interim report raised concerns about the proposed restrictions on the rights to terminate a contract with a business in administration. One issue raised in submissions is that if an administrator is able to 'pick and choose' which contracts to honour, it could affect their counterparty's ability to net-off liabilities under their hedge contracts. The Commission consider it would be appropriate to provide reasonable assurance that the terms of the contracts would be honoured where possible. The counterparty would not be limited in its ability to terminate contracts for reasons other than the appointment of an administrator, such as a breach of contract or cross default rights. However, the remedy available may be limited since the SIMP is insolvent.

As noted by Allens:

"the drafting of any proposed restrictions on third party contractual rights would need to be carefully considered. It is undesirable to restrict third party rights any more than necessary to achieve the objectives of ...administration. However, if stated too narrowly, those restrictions may not be sufficient to allow an administrator to

144 Austin, R. and Aoun, F. (eds), *Restructuring companies in troubled times: director and creditor perspectives*, Sydney University Press, 2010.

145 Allens, *Dealing with financial distress in the national electricity market, special administration regime for electricity retailers*, 10 May 2013, p29.

effectively continue to trade the failed....business and preserve any potentially recoverable value from its assets during that process."[146]

In their submissions to the second interim report,[147] stakeholders cautioned that the effects on the following would need to be considered carefully when contemplating changes to the legal framework and market arrangements:

- existing insolvency laws and arrangements;
- contractual arrangements, particularly ISDA master agreements in relation to OTC contracts;
- corporate structures;
- the effect of changes on companies risk management practices; and
- effects on the Payments System and Netting Act 1998.

The Commission also notes that any restrictions on the rights of third parties to terminate their contracts could lead to increased risks for third parties, which may translate to higher contracting costs for SIMPs. Therefore, the Commission agrees that any changes to the contractual rights of third parties in relation to the operation of stability arrangements would need to be carefully drafted.

7.3.3 How would the arrangements be funded?

Significant financial support would be required during the period when the stability arrangements are in place, because the SIMP would continue to operate in the market, incurring significant payment obligations. These obligations would include:

- the wholesale spot market, for energy purchases - though they may be offset somewhat by revenue from energy sales in the spot market;[148]
- the OTC contract market, to settle differences between spot prices and the strike price under derivatives contracts; and
- other payment obligations, for example fuel supply contracts and employee obligations.

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146 Ibid, p15.

147 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p3; ESAA, 26 September 2014, pp2-3; Origin, 25 September 2014, p5; Stanwell, 25 September 2014, p3.

148 Modelling by AEMO suggests that a retailer with market share of 20% could incur weekly settlement costs of $24 million to $42 million, depending on prevailing spot market prices.

While the failure of the SIMP is being addressed the significant financial obligations incurred could be funded in a variety of ways, for example:

- the market rules could be changed to require SIMPs to provide higher levels of credit support as a matter of course (in advance of any failure), to be called upon if a SIMP fails. This would require a permanent and ongoing increase in the amount of credit support required, but would essentially require SIMPs to bear, at least in part, the potential costs of their failure;
- an industry co-insurance fund could be established. Similarly to an increase in credit support for SIMPs, this would likely require an ongoing contribution to be provided ahead of a failure which would be drawn on if a SIMP fails. However, an industry co-insurance fund would spread the costs of a SIMP failure across the industry rather than require only require the SIMP to bear additional costs;
- an increase in AEMO market fees. This represents an industry funded alternative to an industry co-insurance fund, but would be levied by AEMO. This increase in AEMO market fees could be done on an ongoing basis ahead of a failure or be implemented to recover any additional funds which had not been recovered following a SIMP failure;
- government loans or guarantees; and
- interim government funding - the stability arrangements would need to establish provision for any interim government funding to be recovered as a first priority via the sale of assets and a back-up cost-recovery mechanism, as proposed for the SAR in the first interim report. This back up cost recovery mechanism could reflect a combination of the cost recovery mechanisms discussed above.

Any government funding that is provided could be sourced from the jurisdictions which have been affected by the SIMP failure, as well as potentially from the Commonwealth Government.

Establishing potential sources of funding such as a co-insurance fund, government guarantee or loan, or interim government funding is likely to change the commercial incentives of the creditors to a failing business. Without careful design, the stability arrangements could shift some of the risk of failure from the owners and creditors of an entity onto a broader industry group (in the case of the co-insurance fund) or onto the government (and indirectly onto customers or taxpayers). For this reason, it is important that any external funding would be made under limited, specific conditions, designed to minimise moral hazard.

A clear approach as to how any funding would be sourced ahead of a SIMP failure is required to allow for a speedy response to a failure and improve the chances of an orderly resolution. In particular, where government funding will be sourced from a range of different governments, an agreed approach is needed in relation to how these costs will be shared. This could be set out in an agreement between the Commonwealth, State and Territory Governments.

7.3.4 How are the stability arrangements triggered?

Chapter 6 outlined a proposed framework for deciding whether the failure of a SIMP could be managed via the ROLR arrangements and normal insolvency processes where the business was unlikely to rectify its situation and all viable market-based solutions had been explored. As discussed in Chapter 6, a decision would need to be made in relation to how much time should be provided to the SIMP to explore viable market based solutions before government intervention occurs. Under this framework, the stability arrangements would be an option to be triggered where the ROLR arrangements and normal insolvency processes were not expected to meet policy objectives, including NEM financial stability.

In order for these alternative arrangements to operate effectively, there must be a period of time - *before* the ROLR arrangements or standard insolvency procedures are initiated - when a decision can be made on the most appropriate course of action. This means that third parties would need to be required to give notice to the person with the power to invoke stability arrangements *before* taking any action that would trigger a ROLR event or an external administrator to be appointed, in relation to the market participants covered by the stability arrangements.

For the reasons set out in Chapter 6, it is suggested that the federal Minister with portfolio responsibility for the energy market could ultimately be responsible for making decisions relating to the stability arrangements. This does not imply that the Commonwealth Government would be responsible for the financial support associated with stability arrangements, but it recognises the national nature of SIMPs and the potential role for the Commonwealth in co-ordinating an effective response, including interim financial support if necessary.[149]

As discussed above, opportunities for the private sector to fund or restructure the business should be explored prior before any government involvement and any decision to trigger stability arrangements. However, it is likely that privately funded restructuring options will have been extensively explored prior to the point of insolvency.

7.3.5 What could be involved in stability arrangements?

If the stability arrangements involved the appointment of an external manager or administrator, they could be designed so that the Minister made the appointment directly, or alternatively that the Minister was required to apply to a court for appointment.

Direct appointment has the advantage of allowing for the appointment to be made extremely quickly if necessary. The main practical benefit of court appointment,

149 There are precedents for Commonwealth Government involvement where there is a policy objective to maintain the provision of services, eg, the insolvency of ABC Learning childcare centres in 2008. This precedent is discussed in more detail in the Options paper - see AEMC, *Options paper, NEM financial market resilience*, 9 November 2012, pp101-103.

however, is that it reduces the risk of administrative challenges as to the validity of the appointment. A court would need to have clear criteria to guide its decision, and discretion as to whether or not to make the appointment. Allens has provided further information about the issues relating to appointment of administrators, including the precedent in the United Kingdom special administration regime for energy supply companies.[150]

It is anticipated that an external administrator or manager would have the ability to take any actions necessary to meet the SIMP failure response objective. For example, the external administrator could take actions such as selling property, borrowing or raising funds, or discontinuing some activities which are not required to meet the SIMP failure response objective.

Where government funding has been provided to allow the SIMP to continue operating, conditions on this funding could be put in place to limit the potential risks to other participants and consumers. These conditions could be imposed to improve the likelihood of the SIMP failure response objective being met. Where an external administrator or manager is appointed, these conditions could be imposed by the Minister as part of their appointment to provide clarity around the SIMP's continued operation. For instance, possible conditions could include:

- limitations on trading in the wholesale market. For example, activities which are not necessary for maintaining the continued supply of retail services for customers could be suspended. As discussed in Chapter 9, changes to the NER are proposed to allow for the partial suspension of market participants under external administration;
- limitations on retailing activities, such as not being able to actively market for new customers;
- the immediate transfer of some of the SIMP's customers to a ROLR to reduce the financial risks and obligations on the SIMP; and
- regular reporting requirements to the Chair of the COAG Energy Council and the NEM Resilience Council.

The conditions that are placed on the SIMP would be highly dependent on the circumstances that lead to its failure, the state of the wholesale market, as well as the composition of the SIMP itself. As a result, the application of the stability arrangements would need to be tailored to each specific and unique SIMP failure.

7.3.6 How would stability arrangements be concluded?

It would also be important to identify the circumstances in which the stability arrangements cease, and what would occur from that point. In broad terms it would be

150 Allens, *Dealing with financial distress in the national electricity market, special administration regime for electricity retailers*, 10 May 2013, pp22-23.

appropriate to end the stability arrangements when their objectives have been met. As an example, under the SAR it was envisaged that the administration would conclude when all electricity customers had been transferred to another retailer. At that point the company would be returned to the control of its directors or placed directly into liquidation.

There would also need to be a clear process for how any interim government funding that had been provided would be recovered following the conclusion of the stability arrangements. Where the sale of assets have not recovered sufficient funds to cover the government funding provided, as outlined in Section 7.3.3, additional funding could be recovered through a number of different mechanisms.

In particular, where a source of funding had not been provided for in advance of a SIMP failure, an increase in AEMO's market fees may be the most appropriate mechanism to recover additional funding. The Commission also notes that additional funding could be recovered through transmission network service providers or DNSPs through a regulatory requirement, such as the ROLR cost recovery mechanism set out in the NERL. This could enable network service providers to recover additional funds from consumers through the cost pass through process in the NER. These funds could be recovered from consumers in each jurisdiction in proportion to the benefit that the jurisdiction had gained from the government intervention, or alternatively these funds could be recovered equally from all consumers across the NEM to further smooth the impact on consumers.

8 Changes to existing arrangements – the ROLR scheme

A number of changes to the ROLR scheme are recommended which target the cash flow and additional credit support challenges faced by a ROLR. These changes would allow financial shocks to the NEM to be absorbed more readily through a more effective sharing of the risk across the market. They would also allow the ROLR scheme to operate more effectively in a broader set of circumstances.

In summary, the final recommendations involve changes to the ROLR scheme to reduce the impact of increased cash flow and/or credit support requirements, through:

- revised ROLR cost recovery arrangements, to give the designated ROLR greater certainty that it can quickly recover its costs, by clarifying the type of costs allowed, allowing the AER to undertake a fast track cost recovery process and clarifying the principles for cost recovery;
- delayed designation of ROLRs, to increase the potential for the AER to appoint multiple ROLRs;
- increased awareness and creation of incentives for very large customers to negotiate their own alternative retailer should a ROLR event occur; and
- delayed additional credit support requirements for AEMO and for DNSPs to reduce the impact of the ROLR's increased credit support requirements.

This chapter sets out final recommendations for changes to the ROLR scheme so that it can operate effectively in more situations. Even taking into account the recommendations in this chapter to improve its effectiveness and operation, the ROLR scheme may still not be effective in the event of a SIMP failure.

The second interim report made a number of recommendations for changes to the ROLR scheme. The Commission has considered the submissions made in response to the second interim report and undertaken further analysis. As a result, some of the recommendations made in the second interim report have been amended and refined.

8.1 Risk to NEM financial system stability from the failure of a large retailer

Chapter 3 explains the challenges faced by the ROLR(s)[151] when they acquire a large number of customers under the ROLR scheme.

The key challenges for the designated ROLR arise in two areas:

1. Cash flow risk, ie, the risk that the ROLR will not be able to meet payment obligations due to a mismatch between the timing of money received and payments due, including payments for additional energy purchased, and an initial lack of appropriate hedge contracts; and

2. Additional credit support in relation to the acquired customers, which must be provided to AEMO and, possibly, DNSPs.

8.2 Summary of recommendations

Many of the recommendations would change the allocation of risks borne by different parties involved in the NEM – including retailers, generators, networks businesses, customers, and potentially government. These changes have been assessed in light of whether they result in a more efficient sharing of risk, so that:

- the risk can be reduced or managed at minimum cost; and

- a financial shock to the market can be absorbed more readily, reducing the risk to financial system stability in the NEM,

without leading to inefficient decision-making by market participants.

The Commission's recommendations for changes to the ROLR scheme are summarised in Table 8.1. The recommendations target the key challenges facing the ROLR described in Section 8.1 above. Changes to the NERL and NER are required to implement these recommendations. A paper setting out the required changes in detail has been published with this final report to assist the implementation process.

151 The 'designated ROLR' is the retailer appointed as the ROLR for a connection point in respect of a ROLR event. It will be the 'default ROLR' appointed by the AER under the NERL, unless the AER provides AEMO with written notice before the ROLR event occurs, appointing another registered ROLR as the ROLR for the event.

Table 8.1 Summary of recommended changes to the ROLR scheme

Recommendation	Summary of benefits	Any change from recommendation in second interim report?
Changes to the ROLR to reduce the impact of increased cash flow:		
The recommended changes to cost recovery arrangements for ROLRs include: • amending the principles for cost recovery to reduce uncertainty in relation to cost recovery; • providing further detail in relation to the types of cost the ROLR is able to recover; • specifying the time period the ROLR has to submit a cost recovery application and providing the AER discretion to grant an extension to this time period in certain circumstances; and • enabling the AER to undertake a fast track cost recovery process for ROLR costs which are clearly identifiable and quantifiable.	• Improves the certainty that reasonable ROLR costs can be recovered, providing a more secure basis for the ROLR to seek financing. • Allows the recovery of costs borne by the ROLR to be brought forward which reduces their financial risks. • Potentially increases the number of retailers volunteering to be ROLRs thereby reducing the likelihood of cascading ROLR failure and potentially improving competition between retailers to become ROLRs.	Modified recommendation. Changes from the second interim report are: • Introducing an additional principle into the NERL that the AER must consider when assessing ROLR cost recovery applications: That the actions of the designated ROLR in performing its obligations have been prudent in the circumstances. • Enabling the AER to undertake a fast track cost recovery process for ROLR costs which are clearly identifiable and quantifiable.
Delayed designation of ROLRs - the AER should be able to delay the designation of ROLRs by 24 hours following a ROLR event.	• Increases the potential for the AER to spread the allocation of the failed retailer's customers (and the associated obligations) between multiple ROLRs, by giving them more time to decide which retailer(s) should be appointed as ROLR(s).	Unchanged recommendation

Recommendation	Summary of benefits	Any change from recommendation in second interim report?
Enhancements to the way ROLR arrangements apply to very large customers (those with an individual connection point with consumption of 10GWh per annum or greater): • Very large customers would have a one-week 'period of grace' following a ROLR event to nominate an alternative retailer. • Transfers to an alternative retailer would be accelerated by AEMO where the alternative retailer has agreed to take the liability for the very large customer's load from the ROLR transfer date. • All customer contracts for both large and very large customers would be required to include a notice explaining the ROLR obligations and requirements applicable to them. • The AER would be required to notify very large customers on an annual basis of the specific ROLR obligations applicable to them, using information provided by retailers.	• Maintains benefits of ROLR scheme for smaller customers. • Likely to reduce the financial burden on the designated ROLR of increased cash flow and credit support obligations resulting from very large customers. This may reduce the potential for cascading retailer failures. • Ensures that very large customers receive targeted communications about the implications of a ROLR event on their business and gives them the opportunity to mitigate these risks by organising their own alternative retailer.	Modified recommendation. Changes from the second interim report are: • After the grace period, very large customers who have not nominated an alternative retailer would be assigned to the ROLR from the ROLR transfer date rather than be disconnected. • Transfers to an alternative retailer would be accelerated by AEMO where the alternative retailer has agreed to take the liability for the very large customer's load from the ROLR transfer date. • Customer contracts for all large (including very large) customers would be required to include a notice explaining the ROLR obligations and requirements applicable to them. • The AER would be required to notify very large customers on an annual basis of the specific ROLR obligations applicable

Recommendation	Summary of benefits	Any change from recommendation in second interim report?
		to them, using information provided by retailers.
Changes to credit support arrangements to reduce the impact of the ROLR's increased credit support requirements:		
Delay in additional credit support requirements for AEMO	• Gives the ROLR more time to meet AEMO credit support provisions in relation to ROLR customers, which may be significant.	Unchanged recommendation
Delay in additional credit support requirements for DNSPs	• Gives the ROLR more time to meet DNSP credit support provisions, which may be significant.	Unchanged recommendation

The recommendations are discussed in more detail in the following sections.

The Commission has also assessed other options that are not recommended at this time, either because:

- they do not confer the same level of net benefits as the options recommended, in terms of the assessment framework set out in Chapter 1. This includes mitigating the risk of financial contagion, efficient allocation of risk, and the objectives set out in the NEO; or

- it may be more suitable to consider them in other forums in the NEM, because they have broad implications for the NEM and its participants that extend beyond the financial stability of the NEM, which is the focus of this Review.[152]

In particular, two options that are not recommended are temporarily reducing the market price cap (MPC) following a ROLR event, and deferring settlement for high-priced periods in relation to ROLR customers, as discussed in the second interim report. Introducing a reduced MPC could decrease the incentive for some generators to offer supply into the spot market, potentially leading to short and long term electricity supply shortages. The partial deferral of settlements relating to ROLR customer load during high priced periods would transfer cash flow risk to generators and implementation would be complex. In submissions to the second interim report, stakeholders supported the Commission's recommendation against introducing an MPC or partial deferred settlement arrangements.[153] Further detail in relation to these options is set out in the second interim report.

Also, the options paper raised the question as to whether a government-owned entity could post credit support to AEMO to meet the increased credit support obligations on the designated ROLR for an initial period.[154] The first interim report included a proposal to amend the NER to permit the Commonwealth Government to provide credit support.[155] Such an amendment would enable the Commonwealth Government to provide credit support, but would not place any obligation on the Government to do so.

The Commission now considers that the ROLR would be more able to manage the additional financial obligations without any external support if the proposed amendments to the ROLR scheme were implemented. Therefore it is likely that there would be no need for this amendment and it has not been included in the final recommendations.

152 For example, Alinta's submission to the first interim report suggested that this review consider the costs and benefits of a shorter settlement cycle. This would reduce the level of credit support required by AEMO, and result in a transfer in the required working capital from generators to retailers. If combined with more frequent customer billing, it could reduce the overall level of cash flow risk borne by NEM participants.

153 Submissions to the second interim report by EnergyAustralia, 3 October 2014, p9; Stanwell, 25 September 2014, p2.

154 AEMC, *Options Paper*, 9 November 2012, p97.

It is possible that the Commonwealth Government providing credit support to NEM participants might be part of any alternative arrangements to be applied instead of the ROLR for SIMPs. Therefore, consideration of this amendment, and the appropriate mechanisms to give effect to such an arrangement, could be part of the further work into stability arrangements discussed in Chapter 7.

The analysis and final recommendations in this report have been developed using the ROLR scheme included in the NECF, assuming it applies across the NEM. The NECF has not been adopted in all jurisdictions. New South Wales, South Australia, Tasmania, ACT have all already adopted the NECF and Queensland is scheduled to adopt the NECF on 1 July 2015.

If the recommendations are implemented before the NECF has been adopted across the NEM, jurisdiction-specific changes would be needed in the non-NECF jurisdictions.

As discussed in Chapter 3, the ROLR scheme in the NECF applies to both electricity and gas. The scope of the Commission's Review only relates to the impacts of financial system instability in the NEM and therefore the recommended changes to the ROLR scheme set out below apply to electricity only. However, the Commission recommends that the COAG Energy Council considers the extension of these changes to gas retailers to provide for a simpler and more comprehensive implementation of these recommendations.

8.2.1 Application of revisions to the ROLR scheme

The recommended changes to the ROLR scheme are expected to improve the resilience of the ROLR immediately following its appointment, so it would be less likely to experience financial distress as a result of the financial obligations it acquires on being appointed the ROLR. Relative to the current arrangements, the ROLR scheme would be able to operate effectively in a broader range of circumstances.

Where a small retailer fails, the ROLR may be able to absorb the financial consequences of acquiring the additional customers without needing the additional measures recommended in this chapter. However, there is benefit in the simplicity and certainty from having the same rules under the ROLR scheme, irrespective of the specific circumstances of that ROLR event. Furthermore, where the failed retailer is small the associated financial impact on other participants in the market would also likely be small, and the change in the allocation of risk proposed in these options would not likely be significant.

As discussed above, Chapters 6 and 7 outline alternative decision making frameworks and stability arrangements which are recommended to apply in the event of SIMP failure. Where a SIMP fails, the ROLR scheme may not be effective in maintaining financial system stability in the NEM and alternative arrangements may be needed. As a result, the ROLR scheme may not be applied in the event of a SIMP failure.

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155 AEMC *First interim report*, 4 June 2013, p73.

8.3 Revised cost recovery arrangements

Overview of final recommendations

The Commission recommends that ROLR cost recovery arrangements be modified to provide greater certainty to the designated ROLR(s) that they can quickly recover the reasonable costs that they incur following a ROLR event. These final recommendations have been amended since the first and second interim reports.

Amendments to the NERL would be required to implement the ROLR cost recovery recommendations, as follows:

- remove the requirement in section 166 that when making a cost recovery decision the AER be guided by the principle that the registered ROLR will itself bear some of the costs in proportion to its customer base;
- further clarify the AER's approach to ROLR cost recovery by introducing an additional cost recovery principle in to the NERL: *that the actions of the designated ROLR in performing its obligations have been prudent in the circumstances*.
- provide a list of specified types of costs that the ROLR has the right to recover in relation to a ROLR event.
- specify a three month period from the date of the ROLR event during which a ROLR cost recovery application must be made, with discretion for the AER to allow the recovery of costs beyond the initial three-month period where the ROLR can provide evidence that it would be prudent to do so.
- enable the AER to fast-track parts of a ROLR cost recovery application where the ROLR costs being sought are clearly identifiable and quantifiable. Where parts of an application can be fast tracked, the AER will have discretion over the length of consultation required.

These recommendations would not remove the ability of a prospective ROLR to propose waiving the recovery of some of the costs related to being a ROLR. This leaves open the potential for a retailer to offer to be an additional ROLR on the basis that it absorbs some of the costs of the ROLR event (in return for acquiring the benefit of new customers).

8.3.1 Overview of current arrangements

The NERL requires that ROLRs supply electricity to:

- small customers transferred from a failed retailer at the ROLR's standing offer prices;[156] and
- large customers transferred from a failed retailer at prices published on the ROLR's website, which must be 'fair and reasonable'.[157]

The NERL incorporates a process through which a designated ROLR can apply to the AER to recover the costs that it incurs on or after a ROLR event.[158] A default ROLR may also apply to recover costs incurred in preparing for ROLR events.[159] On receipt of an application the AER must determine a "ROLR cost recovery scheme" and invite submissions on the application over a minimum 20 business day consultation period.[160] The AER must be guided by the following principles:

- the registered ROLR should be provided with a reasonable opportunity to recover the reasonable costs that it incurs with respect to the ROLR scheme;
- the recovery of costs should allow for a return commensurate with the regulatory and commercial risks with respect to the ROLR scheme; and
- the registered ROLR will itself bear some of the costs, in proportion to its customer base.[161]

The AER is required to make a determination on how much of a ROLR's costs should be recovered from one or more DNSPs, who are entitled to recover this cost from their customers.[162]

The AER has published a ROLR statement of approach, which provides some guidance as to how it will assess cost recovery applications.[163] It sets out the general principles for cost recovery scheme determinations, and examples of how the AER may exercise its powers.

156 NERL, section 145.

157 NERL, section 146.

158 NERL, section 166. Under the AER's ROLR guidelines, applications must be made within nine months of the relevant ROLR event. See AER, *Retailer of last resort statement of approach*, November 2011.

159 NERL, section 166(3)(a).

160 NERL, section 166(5).

161 NERL, section 166(7).

162 NERL, section 167.

163 AER, *Retailer of last resort statement of approach*, November 2011.

Further detail of the current arrangements is provided in the first interim report,[164] and in the report by Frontier Economics published with the second interim report.[165]

8.3.2 Stakeholder submissions

Submissions were generally supportive of the recommendations in the first and second interim reports relating to revised cost recovery mechanisms.[166] The AER supported the proposed arrangements, but maintained that cost recovery arrangements for small to medium ROLR events should preserve the principle that the ROLR will itself bear some of the costs.[167]

In its submission to the first interim report, the ENA noted that any compensation payments to assist the designated ROLR should be accompanied by timely distributor cost recovery arrangements or be linked to mechanisms to support timely recovery of costs from customers.[168]

8.3.3 Commission considerations and conclusions

Under the existing NECF regime, the designated ROLR *may* be able to recover all of its reasonable costs. However, some of the NERL provisions may undermine the confidence of the designated ROLR - and those who finance it - that the ROLR can recover all of its reasonable costs. Furthermore, the NERL provides little certainty as to what costs are recoverable as the AER is given broad discretion.

If cost recovery is delayed and uncertain, it could present cash flow problems for the ROLR(s) and make it more difficult for them to secure financing. Where the ROLR event involves the failure of a large retailer, this could result in financial distress or failure of the ROLR, and lead to cascading retailer failure and instability in the NEM.

Reducing the financial uncertainty and cash flow risk faced by the designated ROLR(s) would have a number of benefits:

- The designated ROLR would be likely to have more success in borrowing funds to cover the short-term costs of being a ROLR because it would have more certainty that reasonable ROLR costs can be recovered and about the timing of cost recovery. Also improving cash flow after a ROLR event would likely reduce the risk of cascading retailer failure.

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164 AEMC, *First interim report, NEM financial market resilience*, 4 June 2013, pp 57-60.

165 Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014, pp52-53.

166 A summary of submissions to the second interim report is available in Appendix B. Individual submissions are available on the AEMC website at AEMC website at www.aemc.gov.au/Markets-Reviews-Advice/NEM-financial-market-resilience.

167 AER submission to the second interim report, 21 October 2014, p4.

168 ENA submission to the first interim report, 12 July 2013, p1.

- Similarly, the designated ROLR would be likely to have more success in obtaining the additional credit support required for AEMO and for DNSPs because its future cash flows would be more certain.

- Increased certainty over cost recovery could encourage an increase in the number of retailers volunteering to become ROLRs. The appointment of multiple ROLRs would reduce the impact of the ROLR event on each designated ROLR, spread the risks of being a ROLR among several retailers, and reduce the likelihood that the ROLRs experience financial distress or failure.

- By increasing the potential for multiple ROLRs it may also improve the long term competitiveness of the market by spreading the failed retailer's customers across a range of retailers.

The cost recovery recommendations are well targeted to support these benefits because they address potential sources of financial distress and cascading retailer failure - uncertain cost recovery and its impact on cash flow, financing, and access to credit support.

The Commission recommends the following changes to the ROLR arrangements in the NERL to provide increased certainty that a ROLR can quickly recover its reasonable ROLR costs:

- Remove the requirement in the NERL that, when making its cost recovery decision, the AER be guided by the principle that the registered ROLR will itself bear some of the costs in proportion to its customer base. The ROLR should not be required to bear a proportion of the ROLR costs. This is because it is important for ROLRs to have confidence that reasonable costs will be recovered and it could assist them to seek finance on the basis of future cash flows. However, retailers should still have the ability to offer to bear some costs, as this may encourage retailers to offer competitive terms to become a ROLR, where retailers see a significant benefit in being able to acquire the customers of the failed retailer;

- Further clarify the AER's approach to ROLR cost recovery by introducing an additional cost recovery principle in to the NERL - that the actions of the designated ROLR in performing its obligations have been prudent in the circumstances;

- Further clarify the types of costs that may be recovered by specifying, without limitation, the types of costs that the ROLR has the right to recover in relation to a ROLR event. These costs may include:

  — administration costs

  — additional energy costs in relation to the acquired customers (to the extent that they are not recovered in the prices charged to those customers);

  — financing costs in relation to additional credit support that is required to be provided to AEMO or DNSPs in relation to the acquired customers; and

    - financing costs to cover the period from when the costs are incurred and when they are recovered under this mechanism;

- Specify a three month period from the date of the ROLR event during which a ROLR cost recovery application must be made. For default ROLRs, this three month timeframe would apply from the date of appointment as a default ROLR. This approach would potentially speed up cost recovery determinations by requiring ROLR cost recovery applications to be made sooner. The AER has advised that it may not be practical for ROLRs to assess some classes of ROLR costs within three months (for example IT upgrades) for default ROLRs. Therefore the AER should have the discretion to allow the recovery of costs beyond the initial three-month period where the ROLR can provide evidence that it is prudent to do so;

- Enable the AER to fast-track all or part of a ROLR cost recovery application where the ROLR costs claimed are clearly identifiable and quantifiable. The NERL currently requires a minimum 20 day consultation period for ROLR cost recovery applications. To facilitate a fast-track ROLR cost approval process, the Commission recommends a change to the NERL to provide the AER with discretion over the length of consultation required in considering the fast-tracked costs;

- Specify that the AER is only able to amend the costs recoverable under a ROLR cost recovery scheme if that determination is affected by a material error deficiency such as the provision of false or misleading information to the AER. This amendment would provide ROLRs with greater certainty in relation to cost recovery; and

- Clarify that the full recovery of ROLR costs should be undertaken through distributor payment determinations. Currently the NERL is unclear as to the mechanism that should be used to recover ROLR costs. This change would provide greater certainty in relation to how ROLR costs would be recovered.

These recommendations offer an appropriate balance between providing customers with protection from the pass through of inefficient costs, while recognising that the ROLR is performing an important function by ensuring customers have continuity in retail services following the failure of a retailer.

In addition, enhancing the ability for the ROLR to recover the reasonable costs of performing its functions offers benefits across the NEM, by reducing the risk of cascading retailer failure and the adverse impact this would have on customers. Furthermore, some of these recommendations offer the potential to reduce ROLR costs, to the benefit of customers as providing ROLRs with greater certainty about cost recovery may mean they are able to obtain financing on more competitive terms and conditions.

8.4 Delayed designation of ROLRs

Overview of final recommendation

The Commission recommends that the ROLR regime is amended to delay the designation of ROLRs by the AER by up to 24 hours following a ROLR event. This would increase the potential for the AER to appoint multiple ROLRs. The benefits of appointing multiple ROLRs include:

- spreading the risk of increased cash flow and credit support requirements across the designated ROLRs, and
- allowing a more optimal allocation of customers amongst ROLRs.

The designated ROLR(s) would be appointed as the ROLR(s) for the relevant ROLR event and would acquire the failed retailer's customers from the transfer date specified by the AER.

8.4.1 Overview of current arrangements

The NERL requires a "default ROLR" to be appointed by the AER ahead of time for each electricity connection point.[169] In practice, default ROLRs are generally the original incumbent retailers in the area who previously acted as ROLRs under the former jurisdictional schemes. Retailers can also submit an expression of interest to the AER to become an 'additional ROLR'. The AER has established two categories of additional ROLRs - a 'firm offer' category where retailers pre-commit to the terms and conditions under which they would be appointed as a ROLR, and a 'non-firm' category where retailers register their interest in being a ROLR but do not commit themselves to acting in that role. The AER must maintain and publish a register of ROLRs.[170]

When a ROLR event is triggered, a designated ROLR is appointed for each electricity connection point, and is responsible for taking on new customers and facilitating customer transfers from the failed retailer. Under the NERL, the default ROLR is taken to be appointed as the designated ROLR, unless the AER appoints a registered ROLR as a designated ROLR in respect of a ROLR event before the event actually occurs, and notifies AEMO before the transfer date.[171]

The AER has provided more guidance on its decision-making process in its statement of approach.[172] It notes that a major factor in its selection of designated ROLRs for appointment will be the length of time it has to make the decision. The more warning the AER has of an impending ROLR event, the more registered ROLRs it will be able to consider.

169 NERL, section 125.

170 NERL, section 127.

171 NERL, section 132.

172 AER, *Retailer of last resort statement of approach*, November 2011, pp11-12.

Where there is less than a few hours' notice of a ROLR event, the AER has indicated it is most likely to appoint default ROLRs. With short notice (ie, up to 48 hours), the AER suggests it may also be able to consider additional ROLRs with firm offers. Additional ROLRs with firm offers have agreed not to be consulted prior to being appointed as designated ROLRs (up to the maximum permitted by their terms and conditions). Where the AER has more than 48 hours' notice of a ROLR event it may consider (and consult with) other registered ROLRs. This would include non-firm additional ROLRs who have not agreed to be designated without further consultation at the time of an event.

8.4.2 Stakeholder submissions

Submissions to the first interim report regarding this issue were mixed.[173]

The AER, the National Generators Forum (NGF) and AEMO supported the extension of 24 hours for the AER to advise AEMO of the designated ROLR(s). The ENA sought clarification of how this would work for networks and retailers in practice. AEMO noted the importance of having sufficient information and authority to execute the ROLR process following suspension.

Alinta suggested that while a delay may be desirable, additional planning may avoid the need for a delay. Alinta also suggested that options should be considered for passing through to customers the costs associated with the delay, and that the exposure to generators should be capped.

EnergyAustralia proposed that a short delay may be acceptable if it materially assisted the AER to allocate customers, but that the AER should actively maintain and encourage a market driven allocation through voluntary pre-registration of interest.

Origin did not support delaying the appointment of the designated ROLR, suggesting that a large ROLR event could be managed most effectively where ROLRs have previously registered as firm or non-firm ROLRs and indicated their capacity to take customers.

In submissions to the second interim report, stakeholders noted that delaying ROLR designation by 24 hours was a practical measure that would be likely to improve the operation of the ROLR scheme.[174] In particular, stakeholders supported the increased potential for apportioning ROLR customers across multiple ROLRs. Origin stated that it is important to maintain the existing NERL provisions that allow for voluntary ROLR pre-registration of both firm and non-firm ROLRs.[175]

173 Individual submissions are available on the AEMC website at www.aemc.gov.au/Markets-Reviews-Advice/NEM-financial-market-resilience.

174 A summary of submissions to the second interim report is provided in Appendix B.

175 Origin submission to the second interim report, 25 September 2014, p2.

8.4.3 Commission considerations and conclusions

As described in the first and second interim reports, the NERL would be amended to increase the time allowed for the AER to advise AEMO of the designated ROLR(s), up to 24 hours after the ROLR event. Protocols between AEMO and the AER should be amended to ensure consistency with this amended timeframe.

As a result, the AER would issue a notice identifying the designated ROLR(s) 24 hours later than under the existing NECF framework, and the designated ROLR(s) would be informed of their appointment up to 24 hours later than they are at present. This would give the AER more time to assess the most appropriate allocation of customers following a ROLR event, and to negotiate with different retailers to allocate customers to designated ROLR(s).

This recommendation would require a distinction to be made between the following dates, which currently occur simultaneously under the NERL ROLR provisions:

- the date that the ROLR event occurs (for example the date of the suspension of the failed retailer from the NEM by AEMO, which constitutes a ROLR event under the NERL), which would reflect the ROLR transfer date; and
- the date that the designated ROLR is taken to be appointed.

The designated ROLR would be liable to AEMO for the energy consumed from the transfer date, while also being entitled to bill customers for energy consumed from that same point in time, as is the case under the current NECF provisions.[176] This delay in designation will mean there will be a period in which the designated ROLR is building up liabilities for the failed retailer's customers but has not yet been advised that it is the designated ROLR. During this time the ROLR is likely to be unhedged in relation to the energy purchases of the ROLR customers. The Commission recommends increasing this period by up to 24 hours, though the designated ROLR is likely to have some knowledge of its potential appointment as part of the AER's process.

The current provisions of the NERL make it unlikely that any retailer other than the default ROLR would be appointed as the designated ROLR, given the limited timeframe for the AER to designate anyone other than the default ROLR. Where the retailer in financial distress is large, this is likely to be problematic for the default ROLR because it would take on the liabilities and credit support requirements relating to a large number of customers.

It is also possible that the retailer facing suspension is a default ROLR, and that there are no firm additional ROLRs that could be appointed readily to take on its customers. In this case, the AER could be forced to make a decision at very short notice with no specific legal structure and limited information to guide it. This situation could require the AER to appoint a retailer as a designated ROLR without its consent.

176 The transfer date may be on, before or after the publication of the ROLR notice by the AER, but if the ROLR event involves a revocation of a retail authorisation or suspension from the spot market, the transfer date is the date of revocation or suspension - see NERL, section 136(5).

The advantages of delaying the designation of the ROLR(s) include:

- **Facilitating multiple ROLRs** - The main limitation on the AER's ability to appoint multiple ROLRs relates to the tight timing of designation prior to a ROLR event occurring.

  In their report to the (then) Ministerial Council on Energy (MCE) as part of the development of the NECF ROLR regime, NERA Economic Consulting and Allens Arthur Robinson noted that the most effective means of addressing the issue of a large retailer failure was likely to be allocating the failed retailer's customers to more than one designated ROLR.[177]

  Spreading customers between a number of retailers may also help maintain the long term competitiveness of the retail market, since it could reduce the concentration of customers in a small numbers of retailers;

- **More time to consider the optimal allocation of customers** - With more time available, the AER may be better placed to judge which retailers have sufficient financial resources to meet the obligations of the ROLR, and therefore to minimise the risk of the designated ROLR(s) failing. There would be more time for the AER to negotiate terms with potential ROLRs, while also maintaining confidentiality as the retailer tries to remedy the situation. There would be greater capacity for the AER to involve retailers who have made non-firm offers to be additional ROLRs. These retailers would have the benefit of knowing more about the extent of obligations they would incur as a designated ROLR (such as the number of customers involved and the current spot market prices).

The Commission agrees with the stakeholders who suggested that pre-planning as much as possible would assist the AER in deciding how to allocate customers, but does not believe this alone would be sufficient to support the best decision on the allocation of a failed retailer's customers. The Commission also agrees that the ROLR arrangements could provide better incentives for retailers to nominate as ROLRs, and has made recommendations to support these incentives (eg, through more certainty regarding the nature and timing of cost recovery).

While a delay in designating the ROLR means the ROLR would inherit an unhedged exposure to the spot price for all energy consumed over a longer period, the impact would be mitigated when combined with the recommendations to increase the certainty that the ROLR's reasonable costs would be recovered. Furthermore, the proposed changes to the timeline provide an opportunity for the AER to hold discussions with potential ROLRs, so retailers would likely be aware of their potential appointment and could begin preparations to put hedging contracts into place as soon as possible after appointment.

177 NERA Economic Consulting and Allens Arthur Robinson, *Retailer of Last Resort – Review of current jurisdictional arrangements and development of a national policy framework, Final report prepared for the MCE retail policy working group*, 29 January 2009, pp66-67.

Implementing the delay to the designation of the ROLR would require changes to the notices issued to affected participants, institutions and the public. Currently, after a ROLR event occurs, the AER must decide as soon as practicable whether to issue a ROLR notice.[178] If it decides to issue a ROLR notice, the notice is comprehensive in that it provides information on what the ROLR event was, the failed retailer, the ROLR appointed and the transfer date. Delaying the designation of the ROLR by up to 24 hours would require:

- the AER to issue a ROLR notice as soon as practicable following a ROLR event that identifies the date that the ROLR event occurred the failed retailer and the transfer date; and

- the AER to issue a ROLR designation notice to identify the appointed ROLRs within 24 hours of the ROLR event.

These changes would not preclude the AER from publishing a ROLR notice and a ROLR designation notice at the same time.

The AER would maintain its current ability to appoint a designated ROLR before a ROLR event. There would also be no change to the current provision that where the AER determines to not designate a ROLR or issue a ROLR notice, the default ROLR is taken to be appointed.[179] The Commission notes that the AER may appoint a ROLR before a ROLR event where the AER has a significant amount of notice that a ROLR event is likely to occur. Conversely, where the AER has a compressed amount of time to appoint a ROLR, it may choose not to issue a ROLR notice and/or a ROLR designation notice so that the default ROLR is taken to be appointed.

The Commission notes that the AER currently has discretion as to whether to issue a ROLR notice following the suspension of a retailer from the wholesale market, or where a retailer ceases to be a registered participant in relation to the purchase of electricity through the wholesale market. In these situations, the ROLR scheme would need to be applied to provide for the continuity of retail services to the suspended retailer's customers. To reduce current uncertainty in relation to the application of the ROLR scheme, the Commission recommends that the NERL be amended to require the AER to issue a ROLR notice as soon as practicable in these situations.

The recommended changes to the NERL are to:

- remove the requirement for the ROLR notice to specify the designated ROLR appointed;

- provide for a ROLR designation notice to be issued up to 24 hours after the ROLR event. The ROLR designation notice would specify the registered ROLR(s) appointed and if more than one ROLR is appointed, the allocation of each designated ROLR to particular customers or classes of customers. The notice would contain requirements to be complied with by the designated ROLR or

178 NERL, section 136.

179 NERL, section 132(1).

other persons who are subject to the notice. The ROLR designation notice would have the same service and publication requirements that apply to ROLR notices; and[180]

- Require the AER to issue a ROLR notice as soon as practicable where a retailer has been suspended from acquiring electricity from the wholesale market or ceases to be a registered participant in relation to the purchase of electricity through the wholesale market.

Separating the notices for ROLR events and ROLR designation in this way may cause confusion to the customers of the failed retailer if they do not have information on who the designated ROLR is and when they will be transferred. However, the Commission considers the benefits to customers and market participants of delaying ROLR designation outweighs the inconvenience of not knowing which retailer(s) will take over the ROLR load for a short period of time.

8.5 Amending ROLR arrangements for very large customers

Overview of final recommendation

The Commission recommends enhancing the ROLR scheme in the way it applies to very large customers, which would be defined as those with an individual connection point with consumption of 10GWh per annum or greater. The Commission's recommended changes seek to increase awareness and create incentives for very large customers to negotiate their own alternative retailer should a ROLR event occur, to reduce the financial burden on the designated ROLR.

All large (including very large) customers are currently able to and would continue to have the option to arrange their own alternative retailer before a ROLR event occurs, on terms and conditions agreed by the customer and the alternative retailer. AEMO would need to be notified of this agreement by the alternative retailer.

If its current retailer fails, and an alternative retailer has already been notified and recorded in the market systems, the large customer would be transferred (on the transfer date) to its alternative retailer.

If an alternative retailer is not notified to AEMO before a ROLR event, very large customers would have a seven-day grace period to organise an alternative retailer and for the alternative retailer to notify AEMO of this arrangement. If an alternative retailer is organised during this grace period and it agrees to take liability for the very large customer's consumption from the ROLR transfer date, AEMO would facilitate an accelerated transfer process from the failed retailer to the alternative retailer. This would provide incentives for retailers to seek out

180 The service and publication requirements for ROLR notices are set out in sections 138 and 139 of the NERL respectively.

and compete for very large customers during the grace period.

If the alternative retailer does not take responsibility for the very large customer's liabilities from the ROLR transfer date, the very large customer would be transferred to the designated ROLR from the ROLR transfer date.

If an alternative retailer is not notified to the AER or AEMO before a ROLR event or during the seven-day grace period, the very large customer would also be transferred to the designated ROLR from the ROLR transfer date.

The Commission also recommends introducing an obligation for retailers to include ROLR information in all large customer retail contracts to help inform these customers of their options if a ROLR event occurs.

Further, retailers should provide the AER with very large customer information, including contact and National Metering Identifier (NMI) details, annually so that the AER can communicate ROLR information to very large customers. This would encourage very large customers to obtain their own alternative retailer by informing them of the implications of a ROLR event, and the benefits of arranging an alternative retailer. AEMO will also need very large customers' NMI information when a ROLR event occurs to facilitate the transfer process during the grace period. For this purpose, the AER should be required to share with AEMO the very large customer NMI details.

8.5.1 Overview of current arrangements

The NERL currently defines a large customer but does not define a separate category for very large customers. Under the NERL, a large customer (ie, a business customer who consumes energy at or above 100 MWh per annum[181]) can opt out of the normal ROLR arrangements and reach agreement with a retailer (the 'nominated retailer') to become its retailer if a ROLR event occurs.[182] The large customer and the nominated retailer agree the terms and conditions of supply, and must both notify AEMO in writing. In the absence of such an agreement, a large customer affected by a ROLR event would be transferred to the designated ROLR. While the ROLR must charge small customers their 'standing offer' tariff, they can charge large customers a 'fair and reasonable' tariff, which must be published on their website.[183] To date, no large customers or retailers have notified AEMO that they have entered into such an arrangement. This suggests that large customers may be unaware of their ability to organise an alternative retailer, that making these sorts of arrangements is of low priority, or they are comfortable with being charged the ROLR's tariff.

181 National Energy Retail Regulations, section 7.

182 NERL, section 140(7).

183 NERL, sections 145 and 146.

8.5.2 Stakeholder submissions

In submissions to the first interim report, a number of submissions suggested changes to the way the ROLR scheme is applied to large customers. Alinta Energy suggested the ROLR be made an 'opt-in' for large customers rather than an 'opt-out',[184] while EnergyAustralia proposed limiting the ROLR scheme to small businesses and households.[185]

In light of the submissions to the first interim report, the Commission requested advice from Frontier Economics on this matter. Frontier Economics noted that if large or very large customers could be excluded from the ROLR arrangements, "it is likely this would mitigate some of the increased financial obligations on ROLRs and reduce the risk of financial failure of a designated ROLR".[186]

However, Frontier also suggested that there were likely to be drawbacks to this policy, including:

- that it would impose a wholesale purchase cost exposure to either the failed retailer, AEMO or generators as a whole;
- disconnecting a large number of customers within a reasonable timeframe would not be feasible or efficient, given their likely underlying willingness to pay for electricity;
- it is not clear how an obligation on large customers to nominate their own ROLR would be enforced; and
- large customers would likely nominate another large retailer to be their ROLR, so it may not fundamentally change the overall financial risks facing the retailers remaining after a large retailer failure.

The second interim report proposed that very large customers (those who consume more than 10GWh at a single site) who had not pre-arranged an alternative retailer or did not secure an alternative retailer during a seven-day grace period would be disconnected, unless the very large customer constituted a "sensitive load". Submissions to the second interim report[187] were not supportive of this recommendation. Stakeholders noted that disconnection is impractical within the short timeframe of the seven-day grace period. In particular:

184 Alinta Energy submission to the first interim report, 12 July 2013, p6.

185 EnergyAustralia submission to the first interim report, 19 July 2013, p4.

186 Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014, p16.

187 A summary of submissions to the second interim report is provided in Appendix B.

- communication processes, disconnection processes and resourcing are likely to be difficult,[188] and
- identifying sensitive loads will be difficult, increasing the risk that a sensitive load could inadvertently be disconnected.[189]

8.5.3 Commission's considerations and conclusions

Amending the way the ROLR scheme is applied to very large customers offers potential benefits:

- under current arrangements the ROLR can charge 'fair and reasonable' terms and conditions to large customers, which is likely to reflect the spot price plus a margin. The benefit to a very large customer of entering an agreement with an alternative retailer before a ROLR event occurs is that it could gain greater certainty of the terms and conditions under which it would be supplied, and by whom, if it became affected by a ROLR event;
- very large customers might be able to negotiate more favourable terms in advance than those they could negotiate once their retailer has been affected by a ROLR event. Nonetheless, the proposed one week period of grace following a ROLR event provides flexibility to very large customers who do not negotiate an alternative retailer before a ROLR event occurs, enabling them to negotiate an alternative retailer in the week after a ROLR event without the inconvenience of their retail supply being interrupted; and
- by reducing the size of the customer load that is transferred to the designated ROLR, these recommendations would reduce the additional credit support required by the designated ROLR, as well as their energy purchase costs. Although under current arrangements the ROLR can charge 'fair and reasonable' terms and conditions to large customers, the ROLR could still face cash flow challenges if its energy purchase costs increase dramatically, and there is a delay before it can recover those costs. Furthermore, it is still required to provide credit support to AEMO in relation to the energy consumed by large customers.

In light of Frontier's comments regarding the potential disadvantages of applying this policy to a large number of customers, the Commission proposed a high consumption threshold that involves a relatively small number of customers in total, but still offers significant potential benefits to the designated ROLR in terms of their financial obligations. Data from AEMO suggest there are less than 1,000 connection points with annual consumption of 10GWh or more, and that these connection points account for 15 per cent to 20 per cent of total NEM demand. Reducing the obligation on designated

188 Submissions to the second interim report by AEMO, 21 October 2014, p2; AER, 25 September 2014, p5; AGL, 25 September 2014, p2; ENA, 25 September 2014, p3; Networks NSW, 25 September 2014, p3; Origin,25 September 2014, pp3-4; and Stanwell, 25 September 2014, p1.

189 Submissions to the second interim report by Origin, 25 September 2014, pp3-4 and EnergyAustralia, 3 October 2014, p8.

ROLRs to supply very large customers could reduce their financial obligations substantially. At the same time, the administrative and operational burden involved would be manageable given the relatively small number of customers involved.

The threshold proposed of 10GWh per annum at a single connection point is equivalent to the energy component of a bill of around $1 million per annum. Customers with energy costs of this magnitude are large, energy-intensive businesses, which are likely to have significant influence in negotiating an alternative retailer. The Commission considers that customers of this size should take greater responsibility for managing the risk that their retailer is subject to a ROLR event.

To support the recommended changes to the ROLR arrangements, a very large customer threshold (consumption of more than 10GWh per annum at a single connection point) would need to be implemented through changes to the NERL. Specifically, a new class of customer (very large customer) would need to be created, and a provision would need to be made for setting the very large customer consumption threshold in the National Energy Retail Regulations.

The Commission recommends that large and very large customers would continue to have the option to arrange their own alternative retailer before a ROLR event occurs, on terms and conditions agreed by the customer and the alternative retailer. AEMO would need to be notified of this agreement by the alternative retailer. If their current retailer fails, and an alternative retailer has already been notified and recorded in the market systems, the large and very large customers would be transferred (on the transfer date) to their alternative retailer. It is also recommended that the existing notification process in the NERL is amended to remove the obligation on the customer to notify AEMO of their alternative retailer. Instead an obligation would be placed on the retailer to notify AEMO that they are the nominated retailer for the large or very large customer.

If an alternative retailer is not notified to the AER or AEMO before a ROLR event, the Commission recommends that only very large customers would have a seven-day grace period to organise an alternative retailer and for that alternative retailer to notify AEMO of the arrangement. If an alternative retailer is organised during this grace period and agrees to take liability for the very large customer’s load from the ROLR transfer date, AEMO would facilitate an accelerated transfer process from the failed retailer to the alternative retailer. This would provide incentives for retailers to seek out and compete for very large customers during the grace period. These changes would need to be implemented through amendments to the NERL and AEMO's ROLR Procedures.

The Commission recognises that disconnecting very large customers who have not organised their own alternative retailer within the seven day grace period would be impractical, would increase the risk of a sensitive load being inadvertently disconnected, and may make it difficult to recover liabilities which are accrued by very large customers during the grace period. Assigning a very large customer without an alternative retailer to a designated ROLR after the grace period is the only practical option for recouping grace period liabilities because only retailers can bill customers directly. Therefore the Commission recommends that, if AEMO is not notified of an agreement between a very large customer and an alternative retailer before a ROLR event or during the seven day grace period, the very large customer would be transferred to the designated ROLR from the ROLR transfer date. Very large customers who do not have an agreement with their alternative retailer for the transfer of liabilities from the ROLR transfer date would also be transferred to the ROLR from the transfer date.

Further retailers should be obliged under the NERL to inform all large (including very large) customers of the ROLR arrangements applicable to them through the inclusion of a notice in the customers' retail contracts. This may help to inform all large customers of the ROLR arrangements and encourage these customers to seek alternative retailers, which would reduce the financial risk on designated ROLRs.

There should also be an ongoing, annual requirement in the NERL for the AER to communicate ROLR information to only very large customers. This is intended to encourage very large customers to consider:

- the effects a ROLR event will have on their business, and
- their options to manage this risk (e.g. nominate an alternative retailer).

Requiring ROLR information to be communicated to only very large customers would limit the regulatory burden on the AER and enable this requirement to be targeted to customers which could have the most impact in limiting the ROLR's load and financial obligations.

An obligation included in the NERL would require retailers to provide the AER with very large customer contact and NMI details annually to further increase very large customer awareness in relation to the ROLR obligations which apply to them and to also support the transfer process following a ROLR event. The very large customer contact details would be used by the AER to communicate ROLR information to very large customers. The Commission also recommends that NMI details should be provided by the AER to AEMO to help AEMO identify and manage the transfer process for very large customers following a ROLR event.

8.6 Delay in AEMO credit support requirements

Overview of final recommendation

The Commission recommends that the NER be amended so that the increased credit support that the designated ROLR is required to provide to AEMO for the energy volumes of the acquired customers:

- is waived for one week, and
- then ramped up over the following four weeks from the ROLR transfer date.

8.6.1 Overview of current arrangements

Retailers settle their accounts with AEMO approximately four weeks after the end of the week in which the electricity was supplied. This gives rise to credit risk: if a retailer fails to pay for the energy consumed, a shortfall will arise between AEMO's incoming payments and its outgoing payments to generators.[190] This shortfall could be equal to the retailer's outstandings during that four-week period, plus any spot market purchases during the AEMO reaction period of up to seven days.

If a retailer fails to pay an invoice from AEMO on its due date, the NEM is also exposed to a further period of credit risk between the due date for the invoice and the date on which the retailer is suspended and ceases to accrue liabilities for energy purchased. This additional period could be up to a further seven days.

To address these risks, retailers are required to post credit support to AEMO when they are unable to meet the acceptable credit criteria.[191] The credit criteria include the requirement that the entity be either:

- any entity under the prudential supervision of APRA; or
- a central borrowing authority of an Australian State or Territory which has been established by an Act of Parliament of the State or Territory.[192]

With the exception of Macquarie Bank, these criteria are not currently met by any electricity retailers in the NEM, so in practice retailers typically need to post credit support up to a pre-determined value, the maximum credit limit (MCL). The MCL is calculated so that the probability of the market participant's outstandings to AEMO exceeding the MCL by the time the participant is suspended from the market for non-payment does not exceed the prudential standard of 2%.[193] The MCL is equal to the sum of the outstandings limit (OSL) and the prudential margin (PM), where:

- the OSL is AEMO's estimate of the maximum value that a participant's outstandings can reach over the payment period of 35 days; and
- the PM is an amount designed to cover the value of spot purchases accruing between when a retailer fails to pay an invoice and the date AEMO suspends the retailer, equal to seven days.

AEMO can change a participant's prudential settings at any time with one business day's notice.[194] Any changes that result in an increased MCL require the participant to increase its level of credit support by no later than the effective date of the MCL. A

190 Note that under the NER, a payment shortfall from retailers will result in AEMO short-paying generators rather than taking any loss itself.

191 NER, clause 3.3.

192 NER, clause 3.3.3(a).

193 NER , clauses 3.3.2 to 3.3.5. See Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014, pp28-29.

194 NER, Clause 3.3.8(m).

failure by the retailer to provide this increased credit support by the relevant time constitutes a default event.[195] AEMO may then issue a default notice to the participant. If this is not rectified by 1pm the following day (or a later deadline agreed to in writing by AEMO), then AEMO may issue a suspension notice, under which AEMO notifies the market participant of the date and time from which it is suspended from trading, and the extent of that suspension.[196]

In addition, market participants are each required to ensure their outstandings stay within their respective trading limits. The trading limit is the difference between the total amount of credit support a market participant has provided to AEMO and its prudential margin.[197]

Since the ROLR acquires responsibility for the acquired customers from the time of the transfer date specified in the ROLR notice,[198] its outstandings to AEMO will increase over the following month as energy is consumed. Nonetheless, it is required to post credit support for the full MCL when notified by AEMO, which could be immediately, or up to a week after acquiring the additional customers.

8.6.2 Stakeholder submissions

Stakeholder submissions to the first and second interim report largely supported the recommended changes to AEMO's credit support requirements, noting that the need to provide credit support is a key driver of the risk of financial contagion.

Several submissions to the second interim report expressed support for delaying AEMO credit support requirements.[199] Submissions noted that the proposal will:

- reduce the immediate financial impact on the ROLR;[200]
- distribute the cost burden more evenly across NEM entities;[201] and
- provide more time for the ROLR to procure credit support.[202]

AEMO considered that the changes to NEM credit support requirements following a ROLR event are workable and likely to improve the operation of ROLR scheme, while

195 AEMO's current prudential monitoring process allows credit support to be delivered by 10.30am Sydney time on the MCL effective date.

196 NER, clause 3.15.21(c).

197 NER, clause 3.3.10.

198 NERL, section 140.

199 Submissions to the second interim report by Stanwell, 25 September 2014, p1; Alinta Energy, 23 September, p2; EnergyAustralia, 3 October 2014, pp4-5; Energy Retailers Association of Australia, 2 October 2014, p1.

200 Submissions to the second interim report by GDF SUEZ Australian Energy, 25 September 2014, p3; AGL, 25 September, p2.

201 Submission to the second interim report by GDF SUEZ Australian Energy, 25 September 2014, p3.

202 Submissions to the second interim report by AGL, 25 September, p2; Origin Energy, 25 September, p3.

noting that alternative arrangements are still likely to be necessary to deal with the failure of a large retailer.[203]

8.6.3 Commission considerations and conclusions

If the increase in credit support required by AEMO is substantial, it is possible that an otherwise solvent retailer could fail to meet these obligations in the time currently allowed. Should that occur, AEMO would be entitled to issue the designated ROLR with a default notice on the same day.[204] If the default event is not remedied by 1pm the next day (or any later deadline agreed to in writing by AEMO), AEMO may issue a suspension notice.[205] Suspension would constitute a second ROLR event,[206] and could potentially have a cascading effect in which retailers are progressively suspended after being designated as ROLRs, leading to financial contagion and instability in the NEM.

Precise information about the current level of the credit support for different retailers in the NEM is not publicly available, given the confidentiality of retail market shares. Some estimates are discussed in more detail in Chapter 3, and in the Frontier Economics report which was published with the second interim report.[207]

This analysis suggests that the additional credit support the ROLR must provide to AEMO could be from $98 million to $1 billion, depending on assumptions about spot market prices, the market share of the failing retailer, and whether ROLR customers are all transferred to one ROLR or split between a number of ROLRs.

The recommended changes to the AEMO credit support requirements seek a balance between two factors:

1. on the one hand, allowing the designated ROLR to take up its new customers without having to bear the immediate risk or cost of sharply increased credit support requirements, thereby reducing the likelihood of cascading retailer failure; and

2. on the other hand, decreasing the amount of collateral held by AEMO and raising the possibility that, if the designated ROLR collapsed and was unable to pay AEMO, generators may be short-paid.

The Commission asked Frontier Economics to consider an option to delay the requirement for credit support for a longer period of up to three months. Frontier Economics recommended that the ROLR's obligations to provide increased credit support to AEMO should not be extended further beyond a five-week period, on the

203 Submission to the second interim report by AEMO, 21 October, p.2.

204 NER, clause 3.15.21(b).

205 NER, clause 3.15.21(c).

206 NERL, section 122.

207 Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014, pp31-33.

basis that a substantial increase in credit support could typically be obtained relatively quickly.[208]

Given this analysis and the submissions from stakeholders, the Commission recommends that changes to credit support arrangements should not be extended beyond a five-week period.

The NER should be amended to insert a minimum time before AEMO can require increased credit support from the designated ROLR as a result of its increased customer load. There would be a one-week 'period of grace' in relation to credit support requirements following a ROLR event, following which the required credit support would be ramped up in increments over a period of four weeks until it reaches the level that fully reflects the additional load of the customers from the ROLR event. This would more closely reflect the ROLR's increase in outstandings over this time as energy is consumed and its obligations to pay AEMO increase.

The precise form of credit support ramping would be set out in the credit limit procedure which AEMO is required to develop through public consultation under clause 3.3.8 of the NER. However, the Commission recommends that the NER be amended to require AEMO to take into account the desired form of credit support ramping.

In summary, the changes to the NER would involve:

- A one-week grace period on credit support with respect to the ROLR's additional load should be implemented as an increased trading limit for seven days after the ROLR transfer date. The trading limit should be increased by an amount reflecting the expected outstandings of the ROLR with respect to its additional load during the grace period. As the MCL would not be increased, this could result in the prudential standard being breached during this period.

- AEMO should be required to develop its credit limit procedure to include the process and method by which the ROLR's credit support requirements would be determined such that:

  — the ROLR's MCL would not be increased with respect to its additional load as ROLR for the first seven days following the ROLR transfer date;

  — the MCL would increase weekly over the next four weeks, reflecting the expected growth in the ROLR's outstandings;

  — the ROLR's prudential settings would fully reflect its entire load within five weeks of the ROLR transfer date; and

  — as far as possible, the ROLR's prudential settings with respect to its non-ROLR load would continue to be calculated as normal.

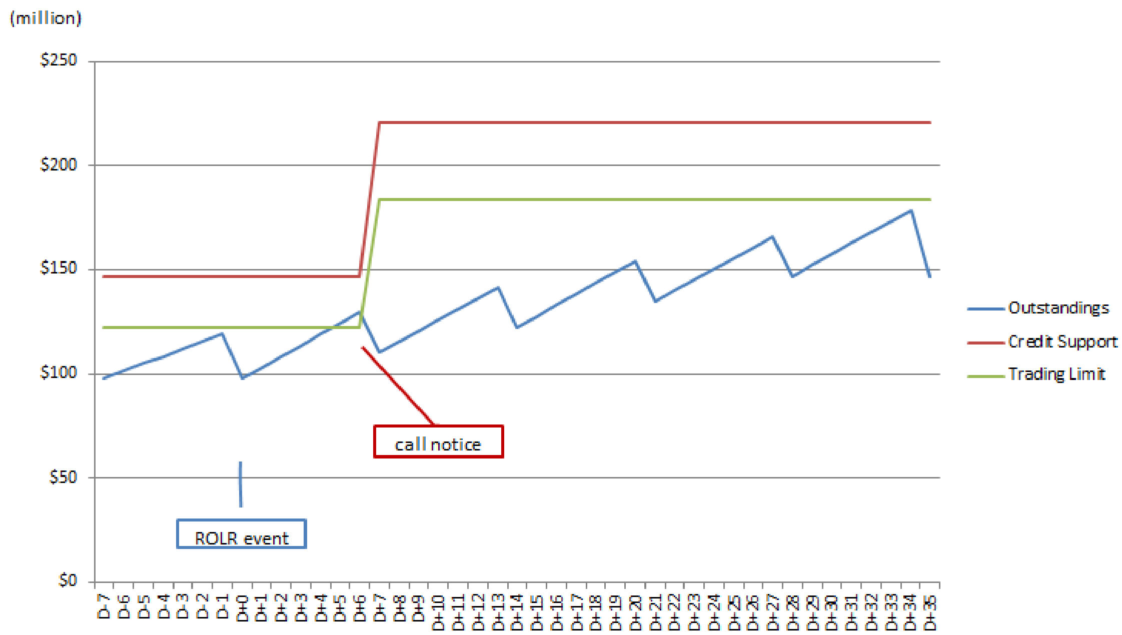
208 Ibid, p34.

The method for changes to the trading limit would also be outlined in AEMO's credit limit procedures and AEMO would notify the ROLR of changes to its trading limit as part of its existing requirements in the NER to notify market participants of any change to their prudential settings.

The following diagrams illustrate how credit support requirements would be imposed currently and how they would be ramped up under the recommended approach. They represent the situation where the ROLR's market share increases from 20% to 30% under normal price conditions.

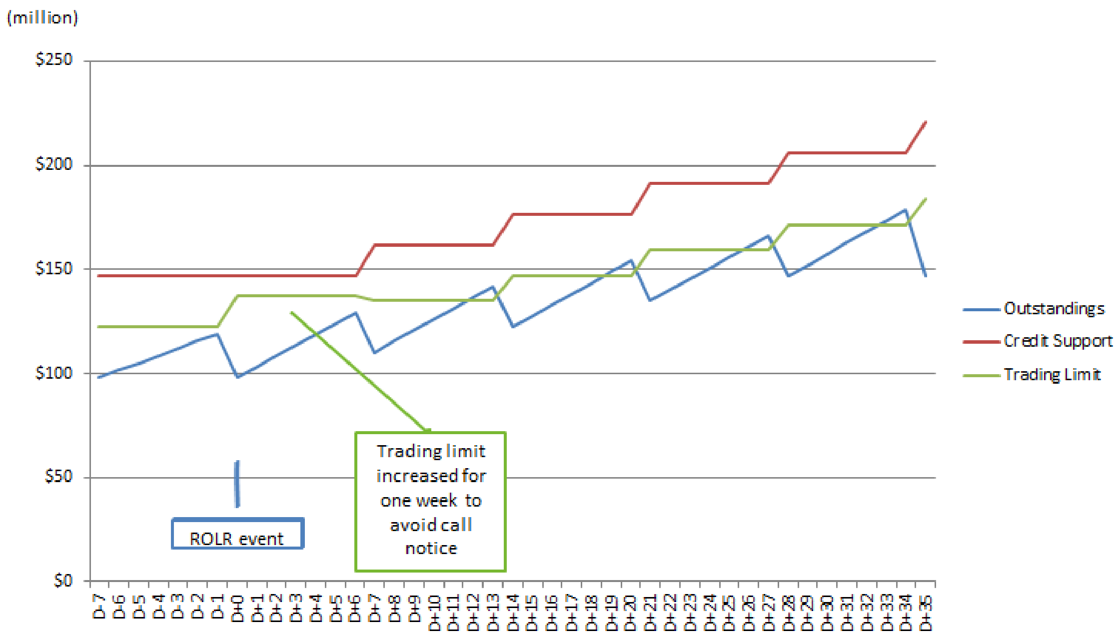
Under the current arrangements, the ROLR would be required to provide a 50% increase in credit support to AEMO one week after the ROLR event to maintain the prudential standard. Under the NER, AEMO is able to request the total amount of additional credit support the next day after a ROLR event. However, to limit the potential for cascading retailer failures, the Commission understands that under AEMO's current practice it would be likely to allow a one week period before requesting the additional credit support.

Figure 8.1 Current AEMO credit support process



Under the recommended approach, the credit support that the ROLR would be required to provide to AEMO ramps up one week following the ROLR event over the next four weeks in line with the growth in its outstandings until it met the total amount of additional credit support required. As discussed above, the Commission's proposed change to the credit support requirements would only apply to the load acquired by the ROLR.

Figure 8.2 Proposed AEMO credit support process



8.7 Delay in additional DNSP credit support requirements

Overview of final recommendation

The Commission recommends that the NER be amended to insert a minimum time of five weeks from the ROLR transfer date before DNSPs can require increased credit support from the designated ROLR as a result of its increased customer load.

8.7.1 Overview of the current arrangements

The NER set out a formula for calculating the amount of credit support that a retailer is required to provide to a DNSP. The formula is described in section 3.4.3 of this report. In summary, a retailer must provide credit support if its network charges liability exceeds its credit allowance. A retailer's credit allowance is fixed *irrespective of the size of the retailer*, in terms of the number or consumption of its customers. An individual retailer’s credit allowance is calculated as a percentage of the relevant DNSP’s maximum credit allowance, with that percentage based on the individual retailer’s credit rating.[209] This means that a retailer with a small number of customers is entitled to the same credit allowance as a retailer of the same credit rating with a much larger number of customers.

As noted by Frontier Economics, "the implication of this formula is that the quantum of a retailer's DNSP credit support obligation is disproportionately positively related to

209 See Schedule 6B.1 of the NER..

its market share".[210] As a result, a very large increase in a retailer's market share due to a ROLR event could lead to a disproportionately large increase in its DNSP credit support obligations. This is because while a retailer's credit allowance may be unchanged as a result of its increased market share, its network charges liability would have significantly increased. This would increase the likelihood of the retailer's network charges liability exceeding its credit allowance and the retailer needing to provide additional credit support to the DNSP.

The requirement for ROLRs to post additional credit support to DNSPs must be met within 10 business days of the request under the NER.[211]

8.7.2 Stakeholder submissions

Stakeholder views were divided regarding the recommendation in the AEMC's second interim report to delay the requirement for ROLRs to provide DNSP credit support. Retailers were generally supportive; network businesses were not.

Section 8.6.2 set out a summary of retailer views on this issue, which applied to both the DNSP and AEMO credit support recommendations. EnergyAustralia also submitted that the recommendation should go further, and delay the requirement for additional DNSP credit support for three to six months to reflect the intensity of activities that need to be implemented following a ROLR event.[212] EnergyAustralia noted that a ROLR should not be required to provide credit support before they bill their new customers.[213]

Network businesses were concerned that the recommendation to defer DNSP credit support does not reflect the magnitude of risks that could be transferred to DNSPs, particularly following the failure of a large retailer.[214] They also submitted that the current credit support arrangements are not working as intended and are not being properly enforced.[215]

The AER submitted that consideration should be given to the combined effect on DNSPs of delayed credit support requirements and the AER making an interim cost recovery determination.[216]

210 Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014, p20.

211 NER 6B.B4.1(b)(2).

212 Submission to the second interim report by EnergyAustralia, 3 October 2014, pp4-5.

213 Ibid, p8.

214 Submissions to the second interim report by the Energy Networks Association, 25 September 2014, p2; NSW DNSPs, 25 September 2014, p3.

215 Submissions to the second interim report by NSW DNSPs, 25 September 2014, p3.

216 Submission to the second interim report by the AER, 25 September 2014, p5.

8.7.3 Commission considerations and conclusions

In addition to the potential difficulty in obtaining additional credit support required by AEMO, the ROLR may also be required to obtain additional credit support for DNSPs. If the increase in credit support required by DNSPs is substantial, it is possible that an otherwise solvent retailer could fail to meet these obligations in the time currently allowed.

Analysis undertaken by Frontier on the Commission's behalf shows that DNSP credit support requirements increase disproportionately for retailers with progressively larger market shares. Under differing assumptions about market shares before and after the ROLR event, along with assumptions regarding the billing arrangements of the transferred customers, a ROLR could be required to provide additional credit support of up to $619m.[217] Further detail on the assumptions used in this modelling are set out in section 3.4.3 and Appendix E.

While this additional credit support would not be required as quickly as the ROLR's current credit support obligations to AEMO, it may nonetheless remain a significant challenge, given the potential magnitude of the additional credit support required.

If a large retailer failed, the total level of credit support provided to DNSPs in the NEM would increase in many circumstances. This is due to the formula used to calculate the credit support, which requires retailers with a larger market share to provide a disproportionately larger amount of credit support. The Commission makes these further observations, consistent with the analysis undertaken by Frontier Economics:

- In the event of a large retailer failure, the increase in a ROLR's DNSP credit support could be substantial. A key question is whether the DNSP credit support obligations increase the likelihood of the ROLR failing and hence make financial contagion more likely.
- Compared with the situation prior to the ROLR event, DNSPs' exposures to retailer non-payment (across all retailers combined) may not rise greatly, if at all, because the formula used to calculate DNSP credit support favours small retailers.
- Even where large retailers are currently providing DNSP credit support, the occurrence of a ROLR event would mean that DNSPs would have access to that support and hence their actual exposures to the new ROLR would only increase gradually as the consumption of the transferred customers accumulated following the transfer.

Where the ROLR event involves a small retailer, the impact of the recommendation to delay DNSP credit support is likely to be minimal. Where the ROLR event involves a larger retailer, this recommendation reflects a better sharing of risk at times of stress in

217 Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014, pp24-25.

the NEM, enabling the shock of retailer failure to be more readily absorbed by the market as a whole and mitigating the risk of financial contagion.

In response to the concerns raised by network businesses in their submissions in relation to the adequacy of the DNSP credit support requirements, the Commission has recently received a rule change request from AGL on this issue. As a result, the Commission considers that the issues raised by DNSPs would be more appropriately addressed through this rule change process. This will allow these issues to be addressed in a more comprehensive and timely manner.[218] The Commission also notes it has recommended a separate framework to address the impact of a large retailer failure in Chapters 6 and 7, as it considers the ROLR scheme, even with the proposed amendments, may not be effective to deal with the impacts of such a failure.

With regard to the recommendation to delay the requirement for ROLRs to provide credit support to DNSPs, the Commission considers that:

- DNSPs will receive network charges from the ROLR, with some lag due to meter reading and billing. DNSPs' exposures would therefore be to cash flow shortfalls associated with this lag and the delay in credit support from the ROLR.
- DNSPs are not exposed through a delay in credit support from a ROLR unless the ROLR itself fails, as DNSPs are only able to draw on the credit support provided where the retailer has an amount due and that amount remains outstanding.[219]If the ROLR is in a marginal position, then requiring DNSP credit support could cause it to fail; DNSPs would be in a worse position as a result.
- DNSPs have alternative avenues to recovering a failed retailer's network charges:
  - calling on the failed retailer's credit support, if provided;
  - through the corporate insolvency procedures under the *Corporations Act 2001 (Cth)*; or
  - through the AER's regulatory determination process by recovering the costs of insurance associated with the financial impact of a retailer insolvency event. The AEMC is also currently considering a rule change request which seeks to allow DNSPs to recover unpaid network charges associated with a retailer insolvency event through the cost pass through process in the NER. Currently DNSPs are only able to recover any

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218 AGL's 'Retailer-Distributor Credit Support Requirements' rule change request can be found on the AEMC website at www.aemc.gov.au. AGL notes in its rule change request that it is seeking to amend the NER and National Gas Rules to allow the retailer-distributor credit support regime to more efficiently reflect the risk of retailer default.

219 See clause 6B.B5.3. A DNSP is also only able to draw on credit support if there is no unresolved dispute in relation to the retailer's liability to pay the outstanding amount.

increased costs rather than unpaid network charges associated with a retailer insolvency event through the cost pass through process.[220]

- The alternative avenues for DNSPs to recover costs associated with a retailer failure provide a degree of certainty around future cost recovery and should assist DNSPs to raise finance for any temporary cash flow shortfalls. The Commission notes this is also the case for any payments DNSPs are required to pay to contribute to ROLR cost recovery determinations, as DNSPs are able to recover these payments through the cost pass through process.[221]

- ROLRs may be less likely to be able to accommodate a call for additional credit support than a DNSP is to be able to accommodate a delay in credit support from the ROLR.

- DNSPs being exposed to delayed credit support from the ROLR over a five-week period may therefore help to maintain system stability at the time of a retailer failure.

Given these factors, the Commission recommends that the NER be amended to insert a minimum time of five weeks from the ROLR transfer date before DNSPs can require increased credit support from the designated ROLR as a result of its increased customer load. The five-week period is consistent with the Commission's recommended revisions to the AEMO credit support provisions. Recommended drafting changes to the NER are set out in a paper which has been published with this final report.

8.8 Assessment against the National Electricity Objective

Relative to the current arrangements, the changes proposed in this chapter would enable the ROLR scheme to operate effectively in a broader set of circumstances. The proposed changes would achieve this by reducing the financial obligations imposed on the ROLR following appointment, or by providing more time for those obligations to be met. In a number of the recommendations, the Commission proposes temporarily reducing the risk borne by the ROLR(s) and sharing that risk across a larger number of market participants. The recommendations diversify risk in order to minimise the risk of financial instability, without unduly imposing material costs on any one group of market participant.

In the Commission's view, this is a proportionate and balanced response to the problem that is consistent with a more efficient utilisation of capital in the industry. It may mean that alternative stability arrangements - to be triggered when the ROLR scheme may not be the best response - would apply to a narrower set of circumstances.

220 See the 'Retailer insolvency costs - pass through provisions' rule change request on the AEMC website at www.aemc.gov.au.

221 See section167(4) of the NERL.

Furthermore, the development of stability arrangements would take a significant period of time and would involve a package of legislative changes to various legislation, including corporate and energy legislation. The changes to the ROLR scheme proposed in this chapter could be implemented more easily, reducing sooner the risk of contagion following a ROLR event.

9 Participant suspension under the National Electricity Rules

The current NER give rise to uncertainty as to whether a generator could remain operating in the NEM if it is part of a retail group that was suspended, or is itself in administration. It could however be beneficial for financial system stability to allow the generation assets to remain operating in the market in such a situation.

As a result, the Commission recommends that the NER be amended to clearly allow AEMO to not suspend one or more of a participant's market registrations, or a subset of its activities under a particular registration, from the market. It is proposed that this change should apply to any market participant AEMO is considering suspending, rather than only those under external administration.

It is also recommended that the NER be amended to not preclude market participants under external administration from participating in the market. However, to minimise risks to the market and other participants, AEMO should be required to consider defined factors in the NER in determining whether or not to suspend the participant under administration. AEMO should also be provided with the ability to impose conditions on a participant under external administration, where it has decided to not suspend one or more of a participant's market registrations or a subset of its activities.

A draft rule which reflects these recommended changes to the NER has been published with this final report. To implement these changes, a rule change request would need to be submitted for public consultation to the Commission by the COAG Energy Council.

This chapter contains the Commission's considerations and recommendations for amending the NER to clarify the ability and framework for AEMO to not suspend a participant under external administration from the market.

The recommendations in this area could apply to both a SIMP and a non-SIMP failure, and both to situations where a participant failure is managed under the ROLR scheme or under alternative stability arrangements.

Overview of final recommendation

To promote financial stability in the NEM, the Commission recommends that the NER be amended to:

- clarify AEMO's ability to not suspend one or more of a participant's registrations, or a subset of its activities under a particular registration, from the market. This change would apply to all market participants, rather than only those under external administration;
- not preclude participants under external administration from participating

in the market;

- require AEMO to consider a range of factors in the NER when considering whether to suspend a participant under external administration; and
- where AEMO has decided to not suspend one or more registrations or a subset of activities for a participant under external administration:
  - require AEMO to notify the relevant participant under external administration and the AER of this decision; and
  - allow AEMO to impose conditions on the participant under external administration and require the participant to comply with these conditions. AEMO would also be required to notify the AER of any conditions it has imposed on a participant.

9.1 Current arrangements for participant suspension

The NER outline a range of different 'default events' for market participants, including both breaches of financial obligations and regulatory obligations.[222] If a 'default event' has occurred in respect of a participant and the default is not remedied or AEMO receives notice from the participant that the default is not likely to be remedied, the NER provides AEMO with discretion as to whether or not to suspend the participant from the market.[223]

The NER also state that, if AEMO issues a suspension notice in respect of a participant that has defaulted, AEMO must specify 'the extent of that suspension'. If AEMO suspends a participant, it must also issue a public announcement that the participant has been suspended, including details of 'the extent of the suspension'.[224] The range of possibilities in determining the 'extent of the suspension' is not defined in the NER. However, the Commission notes this could potentially cover one or more of a participant's market registrations, or only certain activities under a particular registration, effectively keeping the other registrations or activities of the participant in the market.

The NER also prescribe that a participant may only participate in the market if that participant satisfies the relevant prudential requirements set out in chapter 3 of the NER.[225] This includes that each participant must, while participating in the market, not be under external administration (as defined in the Corporations Act) or under a similar form of administration under any laws applicable to it in any jurisdiction.[226]

222 NER clause 3.15.21(a)

223 NER, clause 3.15.21(c).

224 NER, clause 3.15.21(f).

225 NER, clause 2.4.1.

226 NER, clause 3.3.1 (b).

As mentioned in section 5.4, it is unclear from the relationship between these provisions what scope the current NER allow for maintaining one or more of a participant's registrations, or parts of its activities, in the market once it has gone into external administration. This is especially the case if the defaulting participant is a vertically integrated market participant, with significant generation assets besides its retail activities.

9.2 Stakeholder submissions

In submissions over the course of the review, stakeholders have generally supported the possibility of allowing the generation activities of a participant to continue operating in the market while it is under external administration.[227]

In submissions to the second interim report, AEMO noted it would be beneficial to the NER to be clear in relation to the power it has to allow a generator to continue operating while insolvent and the circumstances in which this can be considered. AEMO also considered that there are risks in allowing a generator to trade while insolvent, and that as a result, any arrangement should allow it to apply a broad range of conditions to the participant.[228]

The AER also supported changes to clarify the market suspension provisions in the NER and suggested that a participant operating under external administration should be subject to conditions. These could include regularly reporting to market institutions on matters such as resourcing, technical capability and the expected duration of external administration, due to the difficulties of taking enforcement action against participants under external administration. The AER also considered that participants should be able to be suspended for a broader range of reasons than those currently set out in the NER, such as significant non-compliance with the NER.[229]

Market participants were also supportive of clarifying the NER provisions for market suspension.[230] In particular, GDFSAE, Alinta and the ERAA noted that these changes could assist the participant in financial distress to trade its way through the failure event, while also benefiting the market through avoiding the sudden withdrawal of generation capacity.[231] EnergyAustralia noted that an orderly administration would be less disruptive to the market than triggering the ROLR scheme.[232]

227 See, for example, submissions to the: stage two options paper by Alinta Energy, 18 December 2013, p2; GDF Suez, 19 November 2013, p5; and InterGen, 19 December 2013, p3; and first interim report by: ESAA, 12 July 2013, p4; NGF, 12 July 2013, p5, Alinta, 12 July 2013, p6; Origin, 12 July 2013, p7; ENA, 12 July 2013, p2.

228 Submission to the second interim report by AEMO, 21 October 2014, pp 2-3.

229 Submission to the second interim report by AER, 25 September 2014, pp 5-6.

230 See submissions to the second interim report by: Origin, 25 September 2014, p2; Stanwell, 25 September 2014, p2; ERAA, 25 September 2014, p2; AGL, 25 September 2014, p2; Alinta, 25 September 2014, p2; GDFSAE, 25 September 2014, p. 2; EnergyAustralia, 3 October 204, p9.

231 See submissions to the second interim report by: ERAA, 25 September 2014, p2; Alinta, 25 September 2014, p2; GDFSAE, 25 September 2014, p2.

232 232232 Submission to the second interim report by EnergyAustralia, 3 October 2014, p9.

AGL proposed factors that could be considered in determining whether a generator under external administration should be allowed to continue operating, including the duration of operation while under administration; the materiality of the generator for NEM security of supply; and whether there is sufficient personnel and resources to continue operation.[233]

EnergyAustralia noted that any participant allowed to continue operating while under external administration should be required to meet all of the obligations that apply to any other participant and guarantee to meet all future debts and other obligations that result.[234]

9.3 Commission considerations and conclusions

9.3.1 Clarifying AEMO's ability to partially suspend a market participant

The NER should be clarified to provide AEMO with the ability to only suspend one or more of a participant's registrations or a subset of its activities under a particular registration. Clarifying AEMO's ability to effectively suspend part of a market participant would provide participants and AEMO with greater certainty in relation to how suspension from the market could be applied. It could also help maintain financial system stability in the NEM by allowing some registrations or activities of a participant to continue to operate, where the participant is in financial distress.

As AEMO currently has the ability to specify the 'extent of suspension' for all market participants, the Commission considers that this clarification to the NER to allow AEMO to suspend one or more of a participant's registrations or a subset of its activities under a particular registration, should apply to all market participants rather than only those under external administration.

9.3.2 Framework for suspending participants under external administration

The Commission also considers that the current uncertainty in the NER in relation to allowing a participant, or parts thereof, to keep operating in the market while it is under external administration should be clarified. The possibility of not suspending a participant which is under external administration from the market should exist under the NER, for the following reasons:

- Suspending a participant from the market may impede any corporate rescuing initiatives that could be in the process of being explored around that time and may actually extract value from the failed company.

- Suspending the generation assets of a failed market participant may lead to security of supply concerns.

233 Submission to the second interim report by AGL, 25 September 2014, p2.

234 Submission to the second interim report by EnergyAustralia, 3 October 2014, p9.

- It could be beneficial from the perspective of financial system stability in the NEM to keep the failing business, or part of the business, operating in the NEM.

It is recognised that there are also risks attached to the possibility of keeping a participant which has gone into external administration operating in the market:

- There could be a risk to the settlement process, if the ongoing spot market liabilities of the failed participant cannot, in some way, be funded. This could potentially lead to a shortfall in wholesale market settlement. This risk materialising, and the magnitude thereof, would depend on the particular situation.

- It may be more difficult for the AER to enforce compliance with the NER in respect of a participant in external administration. For example, issuing an infringement notice seeking a financial penalty if the participant fails to comply with the rules may not be effective. In such a situation, the AER may need to obtain special leave from the court to undertake legal action.

- There is no guarantee that the external administrator of the insolvent participant would conduct the market operations in a way that aligns with the SIMP failure response objective set out in Chapter 6. For example, even though the possibility of trading while under external administration may be clarified under the NER, there is no certainty that the external administrator would choose to trade given that, under the Corporations Act, he or she would be personally liable. For the same reasons, the external administrator may choose not to comply with a direction by AEMO to maintain power output.

- Allowing a participant under external administration with retail customers to continue to operate could threaten the supply of electricity to customers.

A range of different corporate structures exist in the NEM and a number of different circumstances could give rise to the need to suspend a market participant. Accordingly, there needs to be sufficient flexibility in the NER to allow AEMO to consider all the relevant factors in determining whether, and to what extent, to suspend a market participant under external administration.

Given these risks and the need for flexibility, the Commission considers that AEMO should be required to consider the following factors in determining whether to suspend a participant under external administration:

- whether the participant has a sufficient source of guaranteed funding to meet any trading amounts relevant to the activities for which it is registered; and

- any other factors AEMO considers relevant to the participant.

These factors would require a separate framework for AEMO to apply in considering suspension for participants under external administration as compared to other participants, due to the risks involved of allowing such participants to continue operating. Where AEMO has decided to not suspend one or more registrations or a subset of activities for a participant under external administration, AEMO should be required to notify both the relevant participant and the AER.

Requiring AEMO to consider whether the participant has a source of guaranteed funding to meet any relevant trading amounts would limit the financial and physical risks to the market of allowing the participant under external administration to continue operating. It would also limit disruptions for retail customers. This is because where a participant with retail activities is unable to meet trading amounts to pay for its load, it is unlikely that its retail activities would be allowed to continue operating.

The Commission has decided to not recommend that AEMO explicitly consider whether the participant has sufficient staff and other resources to continue operating and whether the participant will comply with its obligations in the NER, including AEMO directions. This is because these requirements are not considered necessary as all registered participants have obligations to comply with the NER, which includes obligations to meet required performance and system standards for each type of registration and AEMO directions. These obligations would not be affected where AEMO has decided to not suspend one or more of a participant's registrations or activities.

This represents a change from the second interim report. However, the Commission's recommended approach would provide AEMO with discretion to consider any other factors considered relevant to the participant, including risks associated with non-compliance with the NER.

Further, any concerns that a participant under external administration may not comply with the NER could be managed by amending the NER to allow AEMO to impose conditions on the participant where it has decided to not suspend one or more of the participant's registrations or activities. For instance, these conditions could include regular reporting to AEMO and the AER. This ability to impose conditions on a participant would also provide AEMO with the flexibility to tailor any additional specific conditions to each participant, which are considered necessary to minimise the risks of allowing the participant under external administration to continue operating.

Therefore, the Commission recommends that the NER be amended to allow AEMO to impose conditions on a participant under external administration where it has decided to not suspend one or more of a participant's registrations or activities, and to also require the participant to comply with any conditions imposed by AEMO. As well as notifying the relevant participant of any conditions it has imposed, the Commission recommends that AEMO should be required to notify the AER of any conditions imposed on the participant. This would assist the AER in its role in monitoring compliance with the NER.

Where a market participant under external administration does not comply with conditions imposed by AEMO, AEMO would be able to suspend any remaining registrations or activities under its existing powers in the NER. The Commission considers that its recommendations provide appropriate safeguards associated with allowing a participant to continue to operate while under external administration, while also providing AEMO with the necessary flexibility to take into account the range of circumstances that may occur.

9.3.3 Recommended changes to the NER

To implement these changes to the NER, the Commission has recommended amendments to clause 3.3.1(b) of the NER to remove the requirement for participants to not be under external administration to be able to operate in the NEM. Changes to clause 3.15.21(c) of the NER and a new clause 3.15.21A are also proposed to clarify AEMO's ability to not suspend one or more of a participant's registrations or activities, and to outline the framework for AEMO's decision making in relation to the suspension of a participant under external administration. Drafting changes to the NER to achieve these changes are set out in a paper which has been published with this final report. If the COAG Energy Council chooses to adopt these recommendations, a rule change request would need to submitted to the Commission to implement these changes.

As these changes to the NER could also be applied to SIMPs, the implementation of these recommendations would provide the Chair of the COAG Energy Council with greater flexibility in relation to how to manage and respond to the failure of a SIMP under the decision making framework for SIMPs set out in Chapter 6.

9.4 Assessment against the National Electricity Objective

Permitting a participant, or parts thereof, to remain operating in the market while it is under external administration could be beneficial by helping to maintain financial system stability in the NEM at times of stress. This is unlikely to increase costs on participants or expose them to additional risk in the circumstances. Not allowing the continued market operation of a participant which is under external administration could further aggravate the distress being experienced by the market at that time.

These recommendations would improve the way in which market arrangements could facilitate an appropriate response to a participant failure. The Commission's recommended changes to the NER would provide AEMO with flexibility to consider the range of circumstances relevant to determine whether and to what extent to suspend a market participant under external administration.

For these reasons, the Commission considers that the recommendations in this chapter would meet the NEO.

10 Risk management and transparency measures

This Review has identified OTC contracts as a potential source of financial system instability in the NEM, via the possibility of counterparty default. Currently, the main mechanisms to mitigate the risk of OTC contract counterparty default are the risk management practices adopted by participants.

The Commission has considered additional measures that seek to prevent threats to the NEM's financial stability through the regulation of individual market participants. These measures include a prudential regulatory regime for the electricity sector, a mandatory code of practice, a mandatory stress testing regime and increased transparency measures. These measures all involve additional obligations being imposed on participants. They are common features of financial sector regulation.

Currently, the case is not established for mandating such additional measures in the NEM for the following reasons:

- introducing such measures would require substantial resources and expertise to be effective. The costs of doing so would be likely to outweigh the potential benefit of reducing risk in the NEM;
- the nature and magnitude of risks to financial system stability in the electricity sector differ from those in the financial sector; and
- the measures would not address the key channel where contagion is most likely to be transmitted in the NEM - through the ROLR scheme.

As reflected in previous chapters, attention should be focussed on improving how market arrangements manage and respond to a failure of a large participant.

This chapter considers whether any additional regulatory measures to prevent threats to the NEM's financial stability should be implemented. The measures being considered relate to how participants manage the risks associated with operating in the NEM and seek to protect themselves from financial failure.

10.1 Introduction

Participants' internal risk management practices - ie, documentation of procedures and policies, as well as how these procedures and policies are applied in practice - determine how participants manage the risk of OTC counterparty default and their ability to absorb financial shocks. Accordingly, strong internal risk management practices can indirectly help minimise the risks of financial contagion and hence threats to financial system stability occurring in the NEM.

However, in Chapter 4 it was concluded that participants' risk management practices cannot be relied on or expected to eliminate all risks to financial system stability in the NEM. This has been taken into account when assessing any additional measures that seek to prevent threats to the NEM's financial stability. The Commission consulted on these measures in the stage two options paper, published in November 2013 and in the second interim report, published in August 2014.

The measures span three broad areas:

- prudential regulation;
- risk management obligations; and
- transparency requirements.

Some of these areas are also covered by the G20 recommendations for reforms to the OTC derivatives market. The Commission's advice regarding the potential application of the G20 measures in the context of the NEM is set out separately in Chapter 11.

This chapter contains the Commission's considerations and conclusions regarding:

- prudential regulation in the electricity sector;
- a mandatory code of best practice;
- a mandatory stress testing regime; and
- transparency requirements other than transaction level reporting of OTC trades as envisaged under the G20 recommendations.

These measures are not mutually exclusive.

Relevant considerations

The proposed measures have been assessed against the NEO and the assessment framework set out in Chapter 1. In particular, the Commission has considered:

- the effectiveness of the measures in contributing to a reduction of risks to financial system stability, given the existing information on the standard of risk management in the NEM;
- the costs of introducing a measure compared with benefits of the measure. This includes implementation and ongoing compliance costs, both direct and indirect; and
- the effects of the measure on overall risk management incentives. The measures must not have the effect of moving risk from one part of a business to another, or remove participants' commercial incentive or ability to manage their own risks. In other words, the measure would need to address the problem without creating others.

To be recommended, a measure would have to be effective without introducing overly costly or burdensome regulations on participants. The Commission has also considered whether information available to relevant stakeholders about risks in the market and the arrangements that participants have in place to manage those risks could be increased.

10.2 Prudential regulation in the electricity sector

> **Overview of conclusion**
>
> Based on current information, the Commission does not consider that a case has been made to introduce prudential regulation for the NEM at the present time. Such a regime would not be proportionate to the size of, and the nature of risks to financial system stability in, the NEM.

10.2.1 Description of the measure

Powers exist under the current regulatory framework to intervene in the electricity market to maintain power system security. There is not, however, a regulatory body similar to APRA in the financial sector that has the power to intervene in order to mitigate risks to NEM financial system stability.

The stage two options paper and second interim report contained an option of establishing a prudential regulator for the NEM financial market, with a data collection regime to support its functions. This option involved conferring certain powers on that regulator to preserve financial stability, such as by:

- directing participants to limit or contain their derivative exposures to other counterparties;
- assessing how risk management is being applied; and
- directing participants to strengthen their balance sheets.

The Commission's second interim report contained the draft conclusion that the case had not been made for a prudential regulator in the electricity market because this type of regime would not be proportionate to the risks to financial system stability in the NEM.[235]

10.2.2 Stakeholder submissions

Stakeholders expressed opposition to a prudential regulator in response to the stage two options paper.[236] Their main arguments were that:

- existing ASIC powers regarding financial services licensing are sufficient;[237]

235 AEMC, Second interim report, NEM financial resilience, August 2014, pp129-131.

236 AEMC, Second interim report, NEM financial resilience, August 2014, Appendix C - Summary of stakeholder submissions to the stage two options paper.

- additional supervisory and regulatory powers would be disproportionate to the low risk of financial contagion;[238]

- introducing additional prudential regulatory powers would increase participant costs, create barriers to entry and reduce innovation and competition to the detriment of consumers;[239]

- a regulator would not be in a better position than professional traders and risk managers to make judgements about acceptable levels of risk. Involvement of a prudential regulator in the day-to-day operations of businesses might become too intrusive;[240] and

- prudential regulation might create a problem of moral hazard if businesses started to rely on the regulator to intervene and solve the problems if they occur.[241]

The National Generators Forum (NGF) also noted other potential consequences of introducing prudential regulation:[242]

- knowing that a regulator could intervene may lead other participants to change their risk management behaviour towards distressed participants, for example by terminating hedge contracts earlier than they may have otherwise done; or

- knowing that a regulator is playing an active role in supervising financial exposures and potentially performing risk management decisions for distressed participants could erroneously give investors the impression that the electricity market is a low risk market.

In their submissions to the second interim report, stakeholders supported the Commission's draft conclusion that prudential regulation in the electricity sector should not be introduced. Stakeholders re-emphasised the arguments made in submissions to the stage two options paper discussed above.[243]

The ERAA supported the decision not to pursue regulatory interventions, including prudential regulation, and advocated that market participants are optimally placed to

237 See for example submissions to the stage two options paper by AFMA, 20 December 2013, p11; AGL, 18 December 2013, p6; and Alinta Energy, 18 December 2013, p2.

238 Submission to the stage two options paper by Origin, 19 November 2013, p17.

239 Submission to the stage two options paper by Origin, 19 November 2013, p17.

240 Submissions to the stage two options paper by the Energy Retail Association of Australia, 19 December 2013, p2; ERM Power, 18 December 2013, p18; InterGen, 19 December 2013, p5; and Origin, 19 November 2013, p17.

241 Submissions to the stage two options paper by EnergyAustralia, 19 December 2013, p10; ERM Power, 18 December 2013, p18; and NGF, 19 December 2013.

242 Submission to the stage two options paper by the NGF, 19 December 2013.

243 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p1; Alinta 25 September 2014, p2; EnergyAustralia, 3 October 2014, p9; ERAA, 2 October 2014, p1; GDFSAE, 25 September 2014, p1; Origin, 25 September 2014, p1; Stanwell, 25 September 2014, p2.

manage exposure to financial risk in the NEM.[244] GDFSAE noted that introducing regulatory measures, such as prudential regulation, would impose substantial costs on industry participants and would not adequately take account of the specific nature of financial risks in the electricity sector and the important distinctions from the financial sector.[245]

10.2.3 Commission considerations and conclusions

A prudential regulator for the NEM would monitor, identify, analyse and assess risk from a systemic perspective, rather than from the perspective of an individual business. It would be done on the basis of information about financial interdependencies between participants, and take appropriate mitigation action if the situation demanded it. By recognising the external effects arising from the behaviour of individual participants, as well as the structure of the overall market, a prudential regulator could help to safeguard the financial stability of the market as a whole.

Any prudential regime would need to be clearly defined and not aimed at preventing the normal exit of individual participants from the market so as to avoid moral hazard. Participants would continue to need to manage their own financial and commercial positions.

Developing a prudential framework and establishing a dedicated prudential regulatory oversight body for the NEM would, however, be a highly intrusive measure. It would place substantial regulatory compliance costs and burdens on participants. This could be exacerbated if the regulator tasked with the oversight function intervenes too heavy-handedly or becomes too involved in the management and commercial decisions of participants.

To be effective, a prudential regulator would require a range of legal powers and access to high quality information. Significant resourcing would also be necessary to enable the regulator to properly assess and process that information, and more generally to enable the regulator to exercise its powers adequately. Therefore this measure would impose a high cost on the industry, which could feed through to consumers' electricity prices.

Also of relevance in the electricity context is the size of the market and nature of risk in that market. The market for electricity derivatives is a relatively small part of the total financial market.[246] Although electricity businesses are the main traders in electricity derivatives,[247]these businesses are nevertheless relatively small financial market players compared to banks and other financial institutions.

244 Submission to the second interim report by ERAA, 2 October 2014, p1.

245 Submission to the second interim report by GDFSAE, 25 September 2014, p1.

246 The annual turnover of the electricity financial markets is A$ 633 billion, of a total turnover of the financial markets of about A$ 135 trillion. Source: AFMA, *2013 Australian Financial Markets Report*.

247 About a quarter of the transactions is traded with a financial intermediary. Source: APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, October 2012, p38.

The size and nature of risks to financial system stability in the NEM compared to other non-commodity financial markets is also different. For example, participants in the NEM generally use derivative contracts to hedge against price volatility on the wholesale market. The Commission understands from discussions with industry that currently there is relatively little speculative trade compared to the financial sector.

Based on current information, the Commission does not consider that a case has been made to introduce prudential regulation for the NEM at the present time. Such a regime would create costs for consumers, and would not be proportionate to the size of the NEM and the nature of risks to financial system stability in this market.

10.3 Risk management obligations

In the absence of a prudential regulation measure, a possible approach to mitigating potential risks to financial stability in the NEM is to expand the risk management obligations placed on participants. The measures explored in this section seek to do this through building upon existing arrangements. This section covers:

1. a mandatory code of best practice; and
2. mandatory stress testing.

10.3.1 Code of best practice

Overview of conclusion

Currently the case has not been established for the implementation of a mandatory code of practice.

However, there could be merit in the industry cooperating and developing a voluntary code or standards that provide guidance on appropriate risk management practices.

A mandatory code of best practice would be established by an external body. It would contain a range of risk management standards that would help to mitigate risks to financial system stability in the NEM. This would be achieved by providing a generic framework of principles and guidelines on risk management, thereby building on existing risk management standards.[248] A code could take account of the specific characteristics of the electricity sector, such as the use of OTC contracts, and participants would have to regularly attest they comply with the code.

A code of best practice would have two main purposes:

- By participants signing up to the code, regulators and the broader public would be provided with a level of comfort that risk management practices in the NEM

248 For example standards such as AS/NZS ISO31000-2009

are maintained to at least a minimum level on the basis of the principles and standards set out in the code.

- By providing a benchmark for risk management practices, over time, the code could improve the financial resilience of some businesses which may not currently be operating at 'best practice' level.

The Commission's second interim report contained the draft conclusion that the case had not been made for introducing a mandatory code of practice to help mitigate risks to financial system stability in the NEM, as the costs of implementing such a code would be likely to outweigh its potential benefits.[249]

Stakeholder submissions

In their submissions to the stage two options paper, participants generally rejected the option of introducing a code of best practice, for the following reasons:

- A code may not be able to cater for the diversity of participants, which may mean that it would result in a simplified, standard approach that would represent a less than optimum approach for many participants.[250]

- There is a risk that a code may be either too prescriptive or too vague. If it is too prescriptive, there is a risk that adhering to the code may limit the options of businesses to deal with any risks they face, thereby potentially increasing the risks. If it is too vague, it might be meaningless as a tool to enhance existing risk management practices.[251]

- An additional code of best practice is not necessary as the existing licensing and regulatory framework already ensures that participants adhere to best practice standards.[252]

- It is not clear how a code of best practice could co-exist with or enhance existing internal or external requirements. Participants are required to comply with conditions under their AFSL. As the relevant entity regulating AFSL holders, it could be expected that ASIC would be best placed to have an insight as to what represents industry best practice and where a deficiency in a business risk management practice is identified.[253]

- The preparation of end of year accounts consumes considerable resources and places great time pressure on business operations. At such a time, the insertion of an additional code of practice audit or certification requirement would further

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249 AEMC, Second Interim Report, NEM financial resilience, August 2014, pp132-134.

250 Submissions to the stage two options paper by ERM Power, 18 December 2013, p17; GDFSAE, 19 November 2013, p6; and InterGen, 19 December 2013, p5.

251 Submissions to the stage two options paper by AGL, 18 December 2013, p6; and Alinta Energy, 18 December 2013, p4;

252 Submission to the stage two options paper by the NGF, 19 December 2013, appendix.

253 Submission to the stage two options paper by Origin, 19 November 2013, p16.

divert management attention from core business operations. Any additional reporting requirements under a code would add to the large overheads already borne by electricity businesses and translate into increased costs of electricity supply.[254]

- Once a code 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 participant's audit reveals that it is not following the code of best practice.[255]

In its submission, Origin acknowledged that best practice guidelines may have some value but noted that a code would be unlikely to reduce the risk of contagion.[256] AFMA did not make any recommendations on this issue, but noted industry-led initiatives in developing and maintaining codes of best practice which have proven successful in the financial sector. It noted industry bodies like AFMA can facilitate the development and support for codes of best practice.[257]

ERM Power noted that a code could provide benefits to the businesses through the sharing of information and knowledge about risk management practices in the sector, and would support an industry-led, voluntary code if this could be viable, politically acceptable alternative.[258]

In their submissions to the second interim report, stakeholders supported the Commission's draft conclusion that a mandatory code of practice should not be implemented.[259] AGL agreed that the case has not necessarily been made for additional measures, including a mandatory code of practice, given the low risk of contagion and the costs and regulatory burden of additional measures.[260]

Commission considerations and conclusions

The ASIC review of the risk management policies of Australian financial services licensed entities that trade in electricity OTC derivatives concluded that NEM participants' risk management policies appeared to be appropriate to the nature, size and complexity of the financial services business being conducted.[261]

254 Submission to the stage two options paper by the NGF, 19 December 2013, appendix.

255 Submission to the stage two options paper by GDFSAE, 19 November 2013, p6.

256 Submission to the stage two options paper by Origin, 19 November 2013, p16.

257 Submission to the stage two options paper by AFMA, p11.

258 Submission to the stage two options paper by ERM Power, 18 December 2013, p16,17.

259 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p1; Alinta 25 September 2014, p2; EnergyAustralia, 3 October 2014, p9; ERAA, 2 October 2014, p1; GDFSAE, 25 September 2014, p1; Origin, 25 September 2014, p1; Stanwell, 25 September 2014, p2.

260 Submission to the second interim report by AGL, 25 September 2014, p1.

261 ASIC, *Review of OTC electricity derivatives market participants risk management policies*, Report 390, April 2014.

Based on this current information, there may be limited benefit in imposing a mandatory code of best practice on the industry at present. Given the expected costs associated with developing and administering, as well as complying with, such a code, the Commission considers that its introduction, at this moment, would not create any additional benefit.

Consumers are exposed to the consequences of financial system instability in the NEM. Therefore, the Commission continue to consider that it is important that participants continue to maintain public confidence in, and offer transparency regarding, the quality of their risk management practices. General financial reporting contributes to this, but there may be some merit in the industry providing more transparency and understanding on the standard of risk management practices adopted.

One alternative approach could be for the industry to cooperate and develop voluntary codes or standards that provide guidance on appropriate risk management practices.

Such industry-led initiatives have proven useful in other sectors and have been adopted in energy sectors in different countries. One overseas example is the Committee of Chief Risk Officers (CCRO), which is a platform for risk management best-practice sharing in the United States and Canadian energy industry. Further information on the CCRO is contained in Box 10.1.

Such a voluntary code could incorporate practices reflecting a level of specification over and above what is undertaken by participants to comply with existing licence and other obligations. It could also provide useful guidance for new entrants into the industry.

In developing such an initiative, participants could build upon the work of ASIC in its recent survey of risk management practices, which discussed appropriate practice. As part of this work, ASIC developed the Benchmark Electricity Risk Management Calculator model to review and compare, against a coherent set of metrics, the risk management practices of participants. This model could also be used as a self-assessment tool by an AFS licensee to measure its risk management policies and practices against its peers.

An industry-led approach is preferable to mandating compliance with a code. It would be less costly and builds upon existing risk management practices of participants.

Box 10.1: Committee of Chief Risk Officers

The CCRO is an independent non-profit corporation of member companies in the energy industry in the United States and Canada. The CCRO is dedicated to the advancement of a broad range of best practices in the field of risk management and associated fields such as finance, accounting, operations and audit.

The CCRO’s primary businesses are to:

- Provide a forum for sharing of professional practices;
- Author and publish technical white papers and other documents;
- Facilitate constructive industry initiatives; and
- Offer expert training and other support for professional development.

A number of working groups have been formed to address specific topics such as:

- Risk measurement approaches;
- Risk control & mitigation;
- Financial risk reporting;
- Market transparency; and
- Capital adequacy and liquidity.

Source: CCRO website: http://www.ccro.org/

10.3.2 Mandatory stress testing

Overview of conclusion

Currently the case has not been established for implementing a mandatory stress testing regime for NEM participants.

A mandatory stress testing regime would require participants to periodically conduct a stress test on the basis of prescribed scenarios.

The purpose of such a measure would be to provide insight into participants' abilities to deal with 'severe but plausible' shocks to the system. Participants would be required to estimate the impact of these shocks on their cash flows, profits and capital positions.

The scenarios for the stress test would aim to assess participants' resilience to a number of different shocks. One example could be where a participant's biggest counterparty defaults on its obligations during a sustained period of high spot prices.

The results of the stress tests would have to be reported to an external organisation. This organisation would also decide on the scenarios that need to be tested.

The Commission's second interim report contained the draft conclusion that introducing a mandatory stress testing measure would not be a proportionate response to mitigating the risks to financial system stability in the NEM.[262]

Stakeholder submissions

In their submissions to the stage two options paper, most participants opposed the idea of a stress test reporting regime. The arguments against such a measure included:

- It is unlikely that any one test could be designed that would be usefully applicable to the variety of NEM participants or capture information regarding their key risks.[263] This creates the risk that the test could be set either too low so that it becomes meaningless, or too high and unrealistic so that no business would be likely to pass.[264] Expecting a regulator to find the middle ground and make a judgment about which level is 'acceptable' would also be challenging.[265]

- It is unclear how effective an externally administered stress testing regime would be in reducing the risk of contagion.[266] Imposing a stress test is also not proportionate given the AEMC has not identified the risk participants pose to the NEM through OTC derivatives.[267]

- A stress test only provides a snapshot; it fails to recognise participants' real time response to market events.[268] Participants will have access to many and varied means to manage their business risk (real options) which would not be captured through a stress test.[269]

- As market participants take preparatory actions as the likelihood of a risk event increases, stress testing results reported would inevitably overstate the level of risk that would actually exist during a time of stress and this could lead to unnecessary and badly targeted regulation which creates additional costs with little to no verifiable benefit.[270]

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262 AEMC, Second Interim Report, NEM financial resilience, August 2014, pp135-138.

263 Submissions to the stage two options paper by AGL, 18 December 2013, p6; Alinta Energy, 18 December 2013, p4; Energy Retail Association of Australia, 19 December 2013, p2; NGF, 19 December 2013, appendix; and Origin, 19 November 2013, p15.

264 Submission to the stage two options paper by ESAA, 19 December 2013, p3.

265 Submission to the stage two options paper by ERM Power, 18 December 2013, p16.

266 Submission to the stage two options paper by AGL, 18 December 2013, p6.

267 Submission to the stage two options paper by Origin, 19 November 2013, p16.

268 Submission to the stage two options paper by InterGen, 19 December 2013, p4.

269 Submission to the stage two options paper by the NGF, 19 December 2013, appendix.

270 Submission to the stage two options paper by the NGF, 19 December 2013, appendix.

- It is unlikely that a regulator will be in a better position than risk management experts within the businesses themselves to determine how they should manage risk.[271]

- It could act as a quasi-prudential standard and distort existing risk management decisions and practices.[272]

- It is unclear how a mandated stress testing regime would fit within existing ASIC requirements and authority. In addition, how would the results of a stress test be interpreted if a participant were 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.[273]

- It could lead to moral hazard by reducing incentives for prudent risk management if participants relied on a regulator to act on the results of the stress test.[274]

- A requirement to conduct regular stress tests would impose costs on market participants and key business resources would be diverted away from core operations to little overall benefit.[275]

Submissions to the second interim report supported the Commission's draft conclusion recommending against mandatory stress testing.[276] Alinta noted that mandatory stress testing would be largely counterproductive, not worth the additional cost and would not resolve the key issues confronting the NEM.[277]

Commission considerations and conclusions

Stress testing forces businesses to test their financial resilience when confronted with 'severe but plausible' shocks. Outcomes of stress testing can subsequently be used within a business to make strategic decisions about the adjustment of risk settings such as the company's risk profile. It is important for risk management to consider extreme

271 Submission to the stage two options paper by AGL, 18 December 2013, p6; and ERM Power, 18 December 2013, p15.

272 Submissions to the stage two options paper by AFMA, 20 December 2013, p11; Alinta Energy, 18 December 2013, p4; EnergyAustralia, 19 December 2013, p8; GDFSAE, 19 November 2013, p6; and InterGen, 19 December 2013, p4.

273 Submission to the stage two options paper by Origin , 19 November 2013, p16.

274 Submissions to the stage two options paper by EnergyAustralia, 19 December 2013, p9; InterGen, 19 December 2013, p4; and NGF, 19 December 2013, appendix.

275 Submissions to the stage two options paper by InterGen, 19 December 2013, p4; and NGF, 19 December 2013, appendix.

276 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p1; Alinta, 25 September 2014, p2; EnergyAustralia, 3 October 2014, p9; ERAA, 2 October 2014, p1; GDFSAE, 25 September 2014, p1; Origin, 25 September 2014, p1; Stanwell, 25 September 2014, p2.

277 Submission to the second interim report by Alinta, 25 September 2014, p2.

events and develop appropriate mitigation plans (for example, implementing higher financial reserves).[278]

Stress testing can be expanded with scenario-analysis, in which portfolios are tested against a number of different potential scenarios for the future, with different financial market returns in each of those scenarios.

ASIC's review of OTC electricity derivative market participants' risk management policies demonstrated that regular stress testing is currently performed by over half of the participants, while scenario testing is performed by 32% of the participants.[279]

Industry concerns regarding the risks of moral hazard and distorted risk management practices from applying external stress testing could be addressed by the design of a stress test and clarifying what the consequences of such a test would be. An appropriately designed stress testing regime could provide incentives to improve risk management practices. It could make deficiencies more visible, which the business would have to address. Stress testing is increasingly being applied in the financial sector to assist regulators' monitoring of system risks. As yet, there is no evidence to suggest that it is causing moral hazard in that sector.

Participants are concerned that if the parameters for the stress testing were set at the wrong level, the results could be misleading and create uncertainty and risks for the market. To address this, the organisation responsible would need to have sufficient expertise and understanding of the risks associated with operating in the NEM. In the absence of a prudential regulation framework, it is not clear which market body would have the necessary expertise to do so. In addition, it is not clear how the results could be used under the current market arrangements.

While stress testing is an important internal risk management tool, the Commission considers an external stress testing regime for NEM participants would require significant resources to apply and develop the test. This would create costs and may not be a proportionate response to mitigating the risks to financial system stability in the NEM.

278 The increasing importance of stress testing as a risk management and supervisory tool is recognised in the financial sector. See J. Laker, APRA Chairman, *The Australian banking system under stress – again?*, Speech 8 December 2012. Retrieved via the APRA website: www.apra.gov.au.

279 ASIC, *Review of OTC electricity derivatives market participants' risk management policies*, April 2014, p11 and 12.

10.4 Transparency requirements

> **Overview of conclusion**
>
> The Commission does not consider that any further transparency measures to prevent threats to financial stability in the NEM are justified at present.

It was concluded in Chapter 4 that there is currently limited information available on the risks to financial stability in the NEM and the arrangements that participants have in place to manage those risks.

The G20 trade reporting obligations are a means to increase transparency about a sub-section of the overall electricity derivative markets, namely OTC market activity. The main objective of the G20 reporting obligation is to provide financial regulators with a better insight into OTC market activity, so that this information can be used for the existing regulatory functions of APRA, ASIC and the RBA to assess potential risks to the stability of the overall financial system. The Commission's advice regarding G20 OTC trade reporting is contained in Chapter 11.

In addition to increasing transparency for the purpose of the G20 objectives, two other purposes of additional transparency could be considered:

- to assist participants in their assessment of counterparty risk in the OTC market; and
- to inform policy makers and energy market bodies of potential risks to NEM financial system stability.

The Commission’s second interim report considered the need for additional transparency measures and contained the draft conclusion that additional measures were not required to prevent threats to NEM financial stability.[280]

Stakeholder submissions

Submissions to the second interim report supported the Commission's draft conclusion that further transparency measures were not required. Stakeholders noted that transparency measures would:

- potentially be counterproductive,[281]
- add costs and regulatory burdens that would likely outweigh any benefits,[282]and

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280 AEMC, Second Interim Report, NEM financial resilience, August 2014, pp138-139.

281 Submissions to the second interim report by AGL, 25 September 2014, p1; and Alinta, 23 September 2014, p2.

282 Submissions to the second interim report by AGL, 25 September 2014, p1; Alinta, 23 September 2014, p2; EnergyAustralia, 3 October 2014, p9; GDFSAE, 25 September 2014, p1; and Stanwell, 25 September 2014, p2.

- not necessarily resolve the key issues around NEM financial stability.[283]

10.4.1 Commission considerations and conclusion

Information to assist market participants in their assessment of counterparty risk in the OTC market

There are limits to what a participant can learn about its OTC counterparty's financial situation on the basis of available information sources (eg, annual reports, information from credit rating agencies). Also, participants will have limited knowledge about interconnectedness in the market, ie, how other participants are linked via OTC contracts and what the exposures under these financial relationships are. As a result, participants could be exposed to an unknown degree of risk.

One option to address participants' lack of information about OTC counterparties would be to make public more information on participants' risk management practices, trading activities and exposures to other counterparties. This would require participants to share commercially sensitive information with other participants. However this is not recommended for the following reasons.

Given that the NEM is a relatively small market with relatively small number of players, this would raise obvious confidentiality and competition concerns. Requiring such information to be made public could have adverse impacts on participants' ability to hedge market risk in the NEM as counterparties would seek to use the information to their commercial advantage.

Good risk management requires participants to assess counterparty risk to the best of their ability. To manage any uncertainties around a counterparty’s financial position, participants would also implement adequate insurance policies. If a participant is unsure about the risks associated with a counterparty due to incomplete information, it can take appropriate action to manage that risk.

For example, participants could require a counterparty that is considered to be less creditworthy to post collateral against its contractual obligations, or the participant itself could hold adequate financial reserves as a buffer against a potential counterparty default. The Commission understands that these matters are generally part of NEM participants' risk management practices.

Information to policy makers and energy market bodies

Transparency about the electricity financial markets could potentially also be enhanced for the purpose of informing policy makers and energy market bodies. Currently, the annual 'Australian Financial Markets Report' published by AFMA and the annual 'Report on the Australian OTC derivatives market' published by the joint financial regulators both seek to provide a degree of transparency. Both publications are based

283 Submissions to the second interim report by Alinta, 23 September 2014, p2; Energy Australia, 3 October 2014, p9; and GDFSAE, 25 September 2014, p1;

on voluntary cooperation and have limitations in terms of completeness and the type of information that can be included or made public.

Establishing additional transparency obligations on participants for the purpose of better informing policy-makers and energy market bodies is not recommended.

By its nature, the information that would be collected would only provide a snapshot of the markets at any given time. Additional information that could be made public without raising confidentiality or competition issues would be limited. Such an obligation would also place a significant burden on participants in a relatively small market.

In their submissions to the stage two options paper, participants indicated that they would be willing to work with ASIC in order to develop and refine the OTC derivative survey to make it better targeted at the electricity market.

A refined, improved survey may be a more useful means of feeding relevant information about the OTC market into already existing publicly available publications than imposing additional information requirements. The Commission understands that the next survey is likely to be conducted by ASIC in 2015, however it is uncertain whether electricity derivatives will be specifically examined in future assessments.

10.5 Assessment against the National Electricity Objective

The Commission has considered whether further measures should be introduced to prevent or mitigate risks to financial system stability in the NEM. These measures include a prudential regulatory regime for the electricity sector, a mandatory code of practice, a mandatory stress testing regime and increased transparency measures. These measures all involve additional obligations being imposed on participants. These measures are common features of financial sector regulation.

Currently, the case is not established for mandating such additional measures in the NEM for the following reasons:

- introducing such measures would require substantial resources and expertise to be effective. The costs of doing so would likely outweigh the potential benefit of reducing risk in the NEM; and

- the nature and magnitude of risks to financial system stability in the electricity sector differ from those in the financial sector. For instance, a failure of a NEM participant would not cause major instability to the overall financial system given the relatively small extent of exposure the financial sector has towards the NEM.

The NEM can be distinguished from the financial markets in a few critical ways. The electricity market and its participants are small compared to the broader financial market and its participants. Also, the size and nature of risks to financial system stability in the NEM compared to other financial markets are also different – as electricity market participants appear to use derivative contracts to hedge against price volatility on the spot market, as opposed to speculative trade.

Failure of one or more electricity businesses would cause severe problems for the electricity market, but would be unlikely to lead to major disruption of the wider financial system. This is different for (larger) banks and financial institutions whose failure could cause a collapse of the financial system with knock-on effects to many other parts of the economy, as the GFC demonstrated in different parts of the world. Preventative measures such as prudential regulation of financial institutions and related risk management obligations are therefore crucial for maintaining stability and confidence in the financial system and the wider economy.

Finally, these measures would not address the key channel through which financial contagion is most likely to be transmitted in the NEM - through the application of the ROLR scheme.

As reflected in previous chapters, reforms to improve NEM resilience are best focussed on improving how market arrangements manage and respond to a large participant failure.

11 Advice on the G20 measures for OTC derivatives reform

In response to the GFC, leaders of the G20 countries developed a package of reforms relating to OTC derivatives. These reforms aim to mitigate the risks of financial system instability arising from counterparty default and to increase transparency about OTC derivatives market activity.

The Commonwealth Treasury and ASIC, with input other Council of Financial Regulators agencies, have been implementing these reforms in Australia. As part of this process, the Commission is required to provide advice on applying these reforms to electricity derivatives.

Regarding the potential application of the G20 OTC derivatives reforms for electricity OTC derivatives in the context of NEM financial system stability, the Commission concludes that:

- Transaction-level trade reporting would place significant costs and regulatory burdens on electricity participants' OTC derivatives activities while the benefits of such a measure as a tool to analyse risks to financial system stability are less clear.
- Mandatory central clearing of trades by NEM participants in electricity derivatives could discourage the use of electricity OTC derivatives as a hedging instrument. While mandatory central clearing can help to mitigate counterparty risk from causing financial contagion, contagion may still arise through other mechanisms, such as the cash flow risks associated with margining requirements.
- Margining and capital requirements would increase the cost of hedging as participants would have to obtain and deploy additional working capital to manage the associated cash-flow risk.
- Development of electronic trading platforms for trading electricity OTC derivatives is more appropriately driven by participants' demand for such services rather than through rules-mandated use of such platforms.

For these reasons which are specific to the electricity sector, the Commission considers that under current circumstances, the costs of implementing the G20 measures would outweigh any benefits and the case for implementing the G20 derivatives reforms for NEM participants has not yet been established. This conclusion was drawn by assessing the G20 derivatives reforms against the NEO. The Commission notes that the Government may wish to implement the G20 reforms for broader policy reasons.

A failure of a large NEM participant would not cause major instability to the overall financial system. This is because of the relatively small exposure of the financial sector towards the NEM. Therefore, it is not necessary to apply the measures to electricity derivatives to protect the overall financial system.

In addition, given the differences between the NEM and the financial sector, such measures may not be as effective in preventing threats to financial stability in the NEM. These measures could increase participants' costs of managing spot market price volatility associated with operating in the NEM. This may have a number of consequences, such as transferring risk away from credit risk to other areas, without any net reduction in systemic risk. It could also encourage vertical integration.

This chapter sets out the Commission's advice regarding the potential application of the G20 OTC derivatives reforms to the NEM financial market.

The sections in this chapter cover the four measures proposed by the G20:

- trade reporting;
- mandatory central clearing of standardised OTC derivatives;
- capital and margining requirements for non-centrally cleared OTC derivatives; and
- execution of standardised OTC derivatives transactions on an electronic trading platform.

11.1 G20 measures for OTC derivatives transactions

Following the GFC, leaders of the G20 countries agreed on a package of regulatory reforms for the OTC derivatives market. This agreement was based on the view that shortcomings in the regulation of the OTC derivatives market contributed to the problems that led to the GFC.

The G20 countries therefore agreed that:

> “All standardized OTC derivatives contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest.
>
> OTC derivatives contracts should be reported to trade repositories.
>
> Non-centrally cleared contracts should be subject to higher capital requirements.[284]”

284 G20, Pittsburgh Declaration, at 10.

These reforms aimed to:

- improve transparency in the derivatives market;
- mitigate risks of system instability caused by counterparty default in OTC derivatives markets; and
- protect against market abuse.[285]

Since the G20 declaration in 2009, work has been undertaken by G20 jurisdictions, including Australia, to implement these reforms.

11.1.1 The role and scope of advice on the application of G20 measures

In the G20 implementation framework for Australia under the Corporations Act, the Commonwealth Treasurer determines the classes of derivatives to which particular requirements will apply. The financial regulators - APRA, ASIC and the RBA (jointly referred to as: the financial regulators) - provide the Treasurer with advice on the implementation of the G20 OTC derivatives reforms. Following the Treasurer's determination regarding application of the measures to classes of derivatives, ASIC may then make detailed derivatives transaction rules.

The Corporations Act requires the Treasurer and ASIC, prior to making a determination mandating a commodity derivative or making derivatives transaction rules with regard to a commodity derivative, to have regard to the effect on the underlying physical market.[286]

In doing so, the Treasurer is expected to seek the agreement of relevant ministers with portfolio responsibility for the underlying market, such as the Minister for Industry for the electricity market. Meanwhile, ASIC would be expected to seek the views of regulatory agencies with responsibility for the underlying market.[287]

No determination regarding the potential applicability of the G20 commitments to electricity OTC derivatives in Australia has yet been made. Treasury has indicated that the Australian Government will consider whether it is appropriate to impose any G20 requirements in relation to electricity derivatives after the completion of this Review.[288]

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285 Ibid.

286 See Corporations Act, paragraphs 901B(3)(a) and 901H(a).

287 Corporations Legislation Amendment (derivative transactions) Bill 2012, Supplementary explanatory memorandum.

288 See The Treasury, *Implementation of Australia's G-20 over-the-counter derivative commitments*, proposals paper, December 2012, pp13-14; and Ministerial trade reporting determination, Section 901B(2) Corporations Act 2001, explanatory statement, 2 May 2013, paragraph 15; and The Treasury, *Implementation of Australia's G-20 over-the-counter derivatives commitments*, proposals paper G4-IRD central clearing mandate, February 2014, p1.

The Commission's focus on these matters is the effect that potential application of the G20 OTC derivatives reforms to electricity derivatives could have on the NEM and electricity businesses, rather than the potential applicability of the G20 measures to electricity derivatives as a class. This is because other businesses, such as financial institutions, may also trade in OTC electricity derivatives.

The Commission is not in a position to advise on the applicability of any G20 measure to those groups of financial counterparties that are subject to regulations outside of the energy sector. However, it is noted that there is the risk of inconsistent treatment if parties to the same OTC derivatives transaction were subject to different regulatory obligations regarding OTC derivatives transactions.

In developing its views on the applicability of the G20 OTC derivatives reforms to the electricity market, the Commission has had regard to the NEO and the assessment framework set out in Chapter 1. Stakeholders were consulted on these measures through the stage two options paper, published in November 2013 and the second interim report, published in August 2014.

11.2 Differences between the financial sector and NEM

OTC derivatives are a financial instrument, and electricity businesses in the NEM use this instrument to manage risk. The different characteristics of the financial sector and the electricity market as they currently exist are relevant in considering the potential application of the G20 OTC derivatives reforms to electricity businesses.

The key differences are that:

- Participants in the NEM generally use OTC derivatives contracts to hedge against price risk in the spot market. There appears to be relatively little speculative trade, meaning that trades which are not related to reducing the spot price exposure of either a retail load or a generation asset. This is in contrast with derivatives dealers that may take on principal risk by transacting with clients.[289]

- Participants in the NEM are backed by tangible assets in the form of power stations and customer contracts which represent intrinsic value. A large proportion of the assets and liabilities of financial institutions could be made up of financial assets which may be valued differently, for example for the purposes of prudential regulatory requirements.[290]

- The NEM is a relatively small market compared to the financial sector, with a relatively limited number of players. Participants in the NEM are therefore likely to have good knowledge of their counterparties. By comparison, financial

289 See also for example: submissions to the stage two options paper by Energy Supply Association of Australia, 19 December 2013, p1; ERM Power, 19 December 2013, p5 and 10; and GDF Suez, 19 November 2013, p3.

290 Submission to the stage two options paper by Macquarie Generation, 20 December 2013, p2.

institutions are more likely to have less knowledge of their counterparties because they deal with large numbers of clients.

- A failure of a large electricity business would not cause major instability to the overall financial system given the relatively small exposure of the financial sector towards the NEM.[291]

11.3 Scope of the G20 measures for OTC reform

One of the characteristics of the G20 reforms is that they are primarily focussed on addressing counterparty risk under OTC derivatives contracts, while also addressing transparency and market abuse matters. As explained in Chapter 2, participants face a variety of different risks when operating in the NEM, including counterparty risk, cash-flow risk, market risk and asset risk. In their risk management practices, participants seek to find the appropriate balance between those risks commensurate with their risk appetite and their overall risk management policies.

When considered in context of the electricity sector and the electricity OTC derivatives markets, the G20 reforms could have two consequences:

- They could lead to a transfer of risk away from NEM participant's credit risk to other areas, without any net reduction in systemic risk. For example, participants have indicated that spot price risk is of greater concern than counterparty risk.[292]
- The extent to which the G20 measures help mitigate financial system stability risks is limited to a proportion of participants' activities and risk portfolios related to OTC derivatives contracts. NEM participants are subject to other types of risks and use other types of contracts that are not covered by the G20 requirements, such as exchange traded contracts and weather derivatives.

These characteristics and differences were taken into account when assessing the potential application of the G20 OTC derivatives reforms, including how such measures could affect the incentives and risk management practices of NEM participants.

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291 Submissions to the stage two options paper by AFMA, 20 December 2013, p2; and Alinta Energy, 18 December 2013, p3.

292 Submissions to the stage two options paper by Alinta Energy, 18 December 2013, p3; EnergyAustralia, 19 December p6; ESAA, 19 December 2013, p2; GDF Suez , 19 November 2013, p2; and Macquarie Generation, 20 December 2013, p3. Note that the Corporations Act 2001 provides that the Minister must consider the impact on underlying commodity markets before introducing derivatives rules (s901B(3)(iii)).

11.4 Trade reporting

Overview of advice

The Commission considers that transaction-level trade reporting would place significant costs and regulatory burdens on NEM participants that are subject to reporting requirements and cannot delegate their reporting to a counterparty who is a financial entity derivatives dealer. Electricity businesses, like other OTC derivatives market participants, use OTC derivatives to hedge against other risks. However, transaction reporting may not be meaningful without an understanding of electricity participants' retail and generation positions.

It is also not clear how transaction-level reporting could be used to analyse risks to financial system stability given the types of participants in the NEM, which are different from the types of participants in other OTC derivatives markets. Therefore, the Commission considers that this measure should not be imposed on NEM participants without further analysis as implementing this regime would not be proportionate to the benefits.

11.4.1 Description of the measure

The G20 OTC derivatives reforms include an obligation for counterparties to OTC derivatives contracts to report details of every contract to licensed trade repositories. The objectives of such a trade reporting regime are to:

- enhance the transparency of transaction information available to relevant authorities and the public;
- promote financial stability; and
- support the detection and prevention of market abuse.[293]

Trade reporting seeks to address the fact that, during the GFC, the opacity of the OTC derivatives market made it difficult for regulators and market participants to assess counterparty risk and the degree of interconnectedness in the market. This inability to assess counterparty risk contributed to a decline in liquidity in derivatives markets as market participants became increasingly reluctant to trade with counterparties that might be insolvent.[294] This decline in liquidity in turn aggravated the crisis as participants were unable to manage their risks and financial obligations effectively.

293 ASIC, *Regulation Impact Statement: G20 OTC derivatives transaction reporting regime*, July 2013, p8.

294 Ibid, p9.

Current status of implementation in Australia

For Australia, ASIC published rules on trade reporting in July 2013.[295] The rules currently apply to the following derivative classes: interest rate, foreign exchange, equity, credit and commodity derivatives. As mentioned, the rules currently do not apply to electricity derivatives.

The rules contain an obligation on OTC derivatives contract parties to report certain data on every OTC derivatives trade undertaken in the aforementioned classes (except electricity). This includes 55 data fields that apply equally across all derivatives classes, which ask for information on the parties to the contract (such as name, trading capacity (intermediary/own account) and domicile) and the details of the contract itself (such as type of contract, starting date and valuation). This is supplemented by a number of additional data fields specific for each of the derivative classes.

In addition to transaction data, counterparties to OTC derivatives trades are required to report certain information on their outstanding positions in OTC derivatives. This includes 39 data fields that apply equally across all derivative classes, supplemented by a number of additional data fields specific for each of the derivative classes.

The data has to be reported to trade repositories, which are data warehouses that gather, store and provide access to the data they hold. The trade reporting rules determine that trade repositories must provide access to the reported data to relevant financial regulators such as ASIC, APRA and the RBA on their request.[296] These bodies may have access to aggregate-level data, position-level data and transaction-level data (including the identity of counterparties). Data access is not unlimited - it must be in connection with the exercise or performance of the relevant regulators' functions and powers.

This means that ASIC may for example use the data to analyse counterparty risk in the OTC derivatives market or to investigate potential market manipulation. On this basis, ASIC may draw conclusions about the level of risk in the market and risk management practices by participants, which could potentially lead to further AFSL requirements if necessary. The current trade reporting rules do not provide ASIC, APRA and the RBA with new regulatory powers to act upon the reported results if they reveal an emerging threat to financial system stability.

Trade repositories are also required to make certain information at an aggregate level available to the wider public. The ASIC trade reporting rules specify that a trade repository must create statistical data, for each reporting period of seven calendar days, about:

- all aggregate open positions as at the end of the last day in the reporting period for which the statistical data is created; and

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295 ASIC, *Derivative Transaction Rules (Reporting) 2013*, 9 July 2013.

296 See section 904b(2) of the Corporations Act and rule 2.3.4 of the ASIC Derivative Trade Repository Rules 2013.

- volumes by number and by value of derivatives transactions reported during the reporting period.

In terms of the entities to which the reporting obligation applies, the rules foresee a phased-in approach as set out in Table 11.1.

Most electricity businesses which hold an AFSL will fall in the 'phase 3B' category of entities. As mentioned, this excludes electricity derivatives at this stage, but electricity businesses could have to report on transactions in any of the other OTC derivatives classes such as foreign exchange or interest rate derivatives. Treasury has indicated that 'single-sided reporting' will be introduced for 'phase 3B' entities. If these entities conclude derivatives transactions with counterparties that are already required to report the trade, 'phase 3B' companies will receive reporting relief. Regulations setting out the details of the 'single-sided' reporting regime will be released for consultation in early 2015.[297]

Treasury has proposed to implement a more targeted AFSL reference in the trade reporting regulations. Under this approach the trade reporting obligations would only be imposed on AFSL holders with respect to derivatives authorised under their AFSL. So, for example, if an entity holds an AFSL with authorisation only for electricity derivatives, ASIC could not make rules requiring reporting of trades in other derivative classes by that entity.[298]

In Phases 1, 2 and 3, 'end-users' (which includes those electricity businesses that do not hold an AFSL) will only be affected through reporting obligations that may be placed on their counterparties (ie, their banks or other electricity businesses which hold an AFSL), as end-users themselves have been made permanently exempt from any trade reporting obligation.[299]

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297 Australian Government The Treasury, media release, *Making over-the-counter derivative markets safer*, 12 December 2014, p2.

298 Australian Government, *Implementation of Australia's G-20 over-the-counter derivatives commitments - Proposals paper G4-IRD central clearing mandate*, February 2014, p27.

299 Corporations Laws Amendment (2014 Measures No. 3) Regulation 2014, Schedule 2. See also: Australian Government The Treasury, media release, *Making over-the-counter derivative markets safer*, 12 December 2014, p2.

Table 11.1 Phasing of ASIC's trade reporting regime

		Effective date[300]	
Phase	**Reporting entities**	**Credit and interest rate derivatives**	**Commodity[301], equity and foreign exchange derivatives**
1	Australian 'swap dealers'[302]	1 October 2013	1 October 2013
2	Financial entities[303] with $50 billion or more notional principal outstanding[304]	1 April 2014	1 October 2014
3	Financial entities with less than $50 billion notional principal outstanding	*1 October 2014*	*1 April 2015*[305]
3A with relief	Phase 3 financial reporting entities which held $5 billion or more total gross notional principal outstanding in reportable OTC derivatives transactions as at 30 June 2014.	7 calendar months after first trade repository licence is granted, but not before 13 April 2015.	The earlier of 12 October 2015 and 13 calendar months after first trade repository licence is granted.
3B with relief	Phase 3 reporting entities other than 'phase A' entities	The earlier of: 13 calendar months after the first trade repository licence is granted or 12 October 2015.	The earlier of 12 October 2015 and 13 calendar months after first trade repository licence is granted.

Taken from: APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, April 2014 and ASIC, Instrument 14/0633 - *Staggered and Delayed Start to Phase 3 of the OTC Derivative Transaction Reporting Obligation*.

300 Effective date of the transaction reporting obligation; position reporting obligations are delayed relative to these dates.

301 Excluding electricity derivatives.

302 A 'swap dealer' is a category of entities required to register with the US Commodities and Futures Trading Commission (CFTC).

303 Financial entities refers to Authorised Deposit-taking Institutions (ADI's), AFSL holders, Clearing and Settlement (CS) Facility License holders and exempt foreign licensees.

304 Measured as at 31 December 2013.

305 The original starting dates of 1 October 2014 and 1 April 2015 for phase 3 reporting entities have effectively been replaced by the dates mentioned under the '3A' and '3B' categories.

11.4.2 Stakeholder submissions

The Commission's second interim report contained draft advice that any benefit from introducing trade reporting would not justify the extra cost and regulatory burden placed on the NEM.[306]

Participants expressed the following concerns with mandatory trade reporting for electricity OTC derivatives in their submissions to the stage two options paper:[307]

- Trade reporting would provide little or no useful information about a participant's overall risk position, as a NEM participant's derivatives position is not meaningful without an understanding of its physical position.[308]
- Trade reporting would create significant regulatory burdens and costs for NEM participants.[309] Stakeholders were concerned that these costs could put upward pressure on electricity prices and could also affect competition by increasing the barriers to entry.[310]
- The standard reporting format would not be able to adequately capture the tailored, contingent or complex terms in many electricity OTC derivatives contracts. Incomplete trade reporting would misrepresent the market and credit risk exposure.[311]
- There would be a greater risk of disclosing commercially sensitive information in a small market such as the NEM.[312]
- ASIC can already access the information it needs to allow it to make a judgement about risks in the electricity derivatives market. There does not appear to be a need to have near real time information provided to ASIC.[313]
- Data collected under trade reporting could lead to 'false positive' reactions by regulators, where they undertake inappropriate market interventions based on

306 AEMC, Second Interim Report, NEM financial resilience, August 2014, pp145-153.

307 A summary of the stakeholder submissions to the stage two options paper is included in the second interim report at appendix C. The submissions to the stage two options paper can be found on the AEMC website via: http://www.aemc.gov.au/Markets-Reviews-Advice/NEM-financial-market-resilience.

308 Submission to the stage two options paper by Alinta Energy, 18 December 2013, p4.

309 See for example, submission to the stage two options paper by EnergyAustralia, 19 December 2013, p8.

310 See for example submission to the stage two options paper by AGL, 18 December 2013, p6.

311 Submission to the stage two options paper by Macquarie Generation, 20 December 2013, p5.

312 See for example submission to the stage two options paper by AGL, 18 December 2013, p6.

313 Submission to the stage two options paper by ESAA, 19 December 2013, p3. See also: submissions by Alinta Energy, 18 December 2013, p4; EnergyAustralia, 19 December 2013, p8; ERM Power, 18 December 2013, p14; InterGen, 20 December 2013, p3.

an incomplete understanding of NEM participants' true exposures to risk. As a result, participants could change the nature of their OTC derivatives contracts.[314]

- Transparency is not as vital in electricity derivatives markets because contagion in the sector is unlikely to spread significantly beyond the NEM.[315]
- The uses for trade reporting data for electricity OTC derivatives should be considered before any decisions are made to impose requirements on NEM participants.[316]

As an alternative to transaction-level trade reporting, participants indicated they prefer to build on the OTC derivatives survey that has been undertaken jointly by the financial regulators on a roughly annual basis in recent years. Participants expressed a willingness to work with ASIC to refine this survey and better tailor it to the electricity market.[317]

In its submission to the stage two options paper, the Energy Networks Association (ENA) considered that measures aimed at improving financial reporting and transparency of financial credit arrangements would assist in the early identification and possible prevention of ROLR events. ENA noted that there is significant benefit in exploring such measures as part of a principles-based framework of risk mitigation strategies to prevent ROLR events from occurring.[318]

Submissions to the second interim report expressed support for the Commission's draft advice that any benefit from transaction-level trade reporting would not justify the extra cost imposed.[319]Alinta noted that introducing practices such as trade reporting would provide no benefit to industry or participants while creating the potential to distort participant decision making and therefore increase market risk.[320] EnergyAustralia commented that trade reporting would impose a significant cost and regulatory burden with no evident benefits to the system regulators.[321]

314 Submission to the stage two options paper by InterGen, 20 December 2013, p4.

315 Submission to the stage two options paper by Macquarie Generation, 20 December 2013, p5.

316 Submission to the stage two options paper by ESAA, 19 December 2013, p3. See also: submissions by Alinta Energy, 18 December 2013, p4; EnergyAustralia, 19 December 2013, p8; ERM Power, 18 December 2013, p15; InterGen, 20 December 2013, p3.

317 See for example submissions to the stage two options paper by AGL, 18 December 2013, p2; EnergyAustralia, 18 December 2013, p8; ERM Power, 18 December 2013, p6 and 14; and GDF Suez, 19 November 2013, p7.

318 Submission to the stage two options paper by ENA, 19 December 2013, p1.

319 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p1; Alinta, 25 September 2014, p2; EnergyAustralia, 3 October 2014, p10; ERAA, 2 October 2014, p1; ESAA, 26 September 2014. p1; GDF Suez, 25 September 2014, p2; Origin, 25 September 2014, p1; Stanwell, 25 September 2014, p2.

320 Submission to the second interim report by Alinta, 25 September 2014, p2.

321 Submission to the second interim report by EnergyAustralia, 3 October 2014, p10

AEMO alternative trade reporting model

In its submission to the stage two options paper, AEMO explained how the Swap and Options Offset Reallocations (SOOR) arrangement[322] could contribute to mitigating the risks to financial system stability in the market. AEMO also suggested an alternative, voluntary, trade reporting mechanism that could work in conjunction with its SOOR-model. According to AEMO, this option could have the following characteristics:

- AEMO could establish a database similar to a trade repository, taking into account the rules set by ASIC.
- The system could only capture the key information necessary to support the SOORs and any other service sought by industry. The amount of information to be collected under this mechanism would therefore be more limited than under the ASIC trade reporting rules.
- Market participants could then be offered the option of accessing the SOOR mechanism through the voluntary trade repository.
- Through the SOOR mechanism, AEMO could consider the reallocated OTC derivatives transactions in the calculation of prudential obligations, and settle the transactions with the spot market. This would provide netting opportunities, which, according to AEMO could give rise to a range of benefits, including:
  - less capital tied up in prudentials, while the prudential standard is still met;
  - reduced risk of default arising from the risk of meeting margin and settlement payments.
- Once established, an AEMO trade repository could be leveraged by its users to provide added value through initiatives such as forward price indices.
- AEMO could, if required, provide access to the information contained in the database to prudential regulators as required by any regulatory obligations, as would be the case from any other trade repository.
- Although offered on a voluntary basis, AEMO stated that the aim of the trade repository would be to attract a large proportion of the OTC derivatives that are structured in a way which is consistent with the SOOR arrangements. When combined with the reporting of exchange-traded derivatives, AEMO argued that the level of trade reporting may be sufficient to address systemic risk and provide transparency to the market and prudential regulators.[323]

322 The SOOR is an arrangement that allows the netting of OTC derivatives contracts with physical positions. The SOOR is permitted under the current market rules, but is currently not applied in practice due to AEMO needing a clearing and settlement facility license.

323 Submission to the stage two options paper by AEMO, 19 December 2013, p4.

AEMO noted the advantage of this model would be that it could build on existing platforms and processes already developed for the purpose of managing reallocations. In its view, the model could therefore provide for a lower cost alternative compared to the services provided by commercial trade repositories.

11.4.3 Commission considerations and conclusions

Transaction-level trade reporting would provide detailed information on every single OTC derivative transaction undertaken. The volume of information received would need to be processed and interpreted further in order to arrive at a more complete picture of financial interconnectedness and to create useful transparency about OTC derivatives market activity and systemic risk.

Initially, only the regulators who have currently have access to the reported data would be able to use and assess this volume of information. In the financial sector, this applies to the financial regulators although there is provision for other regulators to gain access to trade repository data.[324] Given current arrangements for oversight of the NEM, it is not clear which electricity authorities, in addition to the financial regulators, would have access to OTC electricity derivative contracts trade reporting data. It is also not clear how this data would be used to inform any actions by the relevant regulator.

In the case of the electricity market, information about OTC derivatives activity alone may not be sufficient to get a complete picture of risks of the NEM participants or to the NEM as a whole for the purposes of system stability. This is because participants in the electricity market primarily enter into OTC derivatives contracts to offset risk in the physical commodity market. Information about the physical side of the trade, or a participant's retail book or positions in the futures market, would also be necessary to get a better picture of risks to NEM financial system stability.

For example, a certain transaction on the OTC derivative market could appear to be 'risky' at face value. However the risk could be fully or partially offset by a position held by the same participant in the futures market.

G20 trade reporting is limited to OTC derivatives activity, it would not, on its own, be effective in providing a complete picture of how participants are managing their risks associated with operating in the NEM, including counterparty credit risk. There is also the question of whether electricity derivatives data would be useful for analysing risks to whole-of-financial system stability.

Implementing transaction-level trade reporting could place costs and regulatory burdens on NEM participants' OTC derivatives activity and more so where single-sided reporting relief was not available. These costs could be significant, as noted by Origin. Hedging risk through the use of OTC derivatives would therefore become more expensive for participants that must incur these costs rather than delegate reporting. As a consequence, participants may choose to transfer risk to other

324 Corporations Act 2001, s904B(2).

parts of the business, which may not lead to an overall reduction of risk. In addition, it could create a barrier to entry for new entrants.

The Commission also notes that some practical, transitional difficulties have arisen overseas with applying transaction-level reporting in practice. Amongst other things, this has been due to confusion about the exact form of data to be reported and differences in reporting standards between trade repositories.[325]In Australia, ASIC has been working with reporting entities to improve data quality and consistency.

For these reasons, the costs of implementing a transaction-level mandatory reporting regime would not proportionate to the benefits. Costs could be relatively high for NEM participants that cannot meet their reporting obligations via delegated reporting. This is because they usually trade OTC derivatives with other electricity companies rather than financial entity dealers who have existing OTC derivatives trade reporting requirements. The Commission considers that transaction-level trade reporting would not significantly contribute to the NEO because the uncertainty over how trade reporting data would be used outweighs the potential costs on NEM participants. Therefore the Commission recommends that this measure should not be implemented for electricity derivatives at this time.

Further, the volume of OTC derivative transactions in electricity will be substantially less than the volume in the financial OTC derivative markets. Developing an understanding of electricity participants' use of OTC derivatives contracts may be better achieved through a survey-based approach. ASIC, with the other financial regulators, has conducted a number of surveys on electricity OTC derivative contracts.

An OTC derivative survey as previously undertaken by the financial regulators contributed to regulators' understanding of the OTC derivative market. Participants have expressed a willingness to work with ASIC to refine such a survey in future. This approach could provide some transparency to ASIC on management of counterparty credit risk in the NEM without the excessive costs of the G20 measure. It should be noted however that the financial regulators have made no public commitment to conduct these assessments on an ongoing basis, beyond indications in the last market assessment that another survey will likely be conducted in 2015, and there is no indication whether electricity derivatives will be specifically examined in any future assessments.

In regard to AEMO's suggested trade reporting mechanism, the Commission recognises that the SOOR mechanism provides benefits through leading to a more efficient use of capital in the industry. However, the proposed additional trade reporting aspect could discourage participants from using this type of reallocation. In addition, as the mechanism is based on voluntary participation, it may not provide a complete picture from the perspective of analysing indicators of risk to financial system stability in the NEM.

325 For example, see Osipovich, A., *US energy firms facing Dodd-Frank trade reporting 'nightmare'*, Energy Risk, 3 February 2014; and G. Carr, *Emir reporting date sparks 'mad rush' in energy derivatives market*, Energy Risk, 17 February 2014.

11.5 Mandatory central clearing

Overview of advice

Introducing a mandatory requirement for OTC derivatives contracts to be centrally cleared would increase costs and discourage the use of such contracts to hedge market risk in the NEM. It could introduce new sources of risk to system stability in the NEM due to the associated margining requirements.

While the appropriate use of central clearing may help address systemic risk, for the electricity OTC derivative market, a central clearing obligation could have a number of unintended consequences. It could encourage participants to hedge internally, and could increase vertical integration as a result. Further, the extra costs and decline in liquidity of available hedges could disproportionately affect small retailers. This could negatively affect retail competition in the NEM. The Commission advises against imposing a central clearing obligation on electricity businesses. This advice is consistent with the Council of Financial Regulator's recommendation to the Government not to impose a broader central clearing mandate at this stage beyond internationally active derivatives dealers.[326]

There could be efficiencies through greater netting and clearing of all electricity transactions in the NEM. This includes aligning OTC derivatives contracts with spot and futures market transactions. AEMO and the ASX have announced that they are jointly exploring solutions in this area.

11.5.1 Description of the measure

Under the G20 measures, counterparties to OTC derivatives contracts are required to clear their transactions through a central counterparty (referred to as a 'clearing house'). The clearing house interposes itself between the original counterparties, and effectively takes on the rights and obligations under the contract and guarantees performance of the transaction.

In this way, a clearing house could simplify the network of financial interconnections between participants. In particular, it would be able to net off transactions between various participants and provide safeguards that the failure of a member to the clearing house would not affect other members. This would likely reduce total risk.

To provide the clearing house with sufficient financial guarantees, members of the clearing house must provide initial margins and put up daily variation margins against changes in the value of the contracts. These protection measures allow clearing houses to absorb and mitigate the potential knock-on effects of a major counterparty defaulting.

In order for a contract to be able be cleared, a number of preconditions must be met:

326 APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, April 2014, p4 and p47.

- the contract must have a robust valuation methodology so that the central counterparty can confidently determine margin and default fund requirements;
- there must be sufficient liquidity in the market to allow for close out and/or hedging of outstanding positions in a default scenario;
- there must be sufficient transaction activity and participation so that the fixed and variable costs of clearing the transaction are covered; and
- there must be some standardisation of contracts to facilitate the central clearing party's trade processing arrangements.

Current status of implementation in Australia

The Commonwealth Treasury has indicated that a ministerial determination will be made in the first half of 2015 that will allow ASIC to make rules requiring the central clearing of the Australian dollar-, US dollar-, Euro-, British Pound- and Yen-denominated interest rate derivatives.[327] The clearing obligations would only apply to large financial institutions with significant cross-border activity in these products.[328] The proposals are based on recommendations provided by the financial regulators in July 2013.[329]

Treasury noted that the Government will wait for the recommendations from future market assessments before considering central clearing mandates for any other derivatives. Regarding electricity derivatives, Treasury noted that these instruments will not be considered for inclusion in the central clearing mandate until the completion of future market reviews.[330]

In their 2014 Report on the Australian OTC Derivatives Market, the financial regulators made further recommendations regarding the implementation of a central clearing mandate.[331] In the report, the financial regulators:

- recommended that the Government consider a central clearing mandate for trades between internationally active dealers in Australian dollar-denominated interest rate derivatives;
- did not see a case for implementing a central clearing mandate for North American, European and Japanese referenced credit index derivatives at this time; and

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327 Australian Government Treasury, media release, *Making over-the-counter derivative markets safer*, 12 December 2014, pp 1-2.

328 Australian Government, *Implementation of Australia's G-20 over-the-counter derivatives commitments - Proposals paper G4-IRD central clearing mandate*, February 2014.

329 APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, July 2013.

330 Australian Government, *Implementation of Australia's G-20 over-the-counter derivatives commitments -Proposals paper G4-IRD central clearing mandate*, February 2014, p1.

331 APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, April 2014.

- did not recommend that a central clearing mandate be introduced at this time for 'non-dealers'.

This category includes non-financial entities such as electricity businesses.

Regarding 'non-dealers', the regulators noted that:[332]

> "With few exceptions, non-dealers' activity in OTC derivatives is relatively limited and motivated primarily by hedging of underlying cash flows and exposures. Accordingly, even though there may be some systemic risk reduction benefit from central clearing by non-dealers, it is likely to be limited. Indeed, where small financial institutions and especially non-financial entities have restricted access to liquid assets to meet CCPs' initial and variation margin obligations, new sources of risk could emerge."

Therefore,

> "the Regulators do not believe it is appropriate to mandate central clearing for non-dealers at this time. The Regulators will nevertheless continue to monitor the availability of client clearing for OTC interest rate derivatives and the incentives-led migration to central clearing, particularly by non-dealers with access to sufficient liquidity. In addition, the Regulators will review the impact of international regulatory developments."

11.5.2 Stakeholder submissions

In their submissions to the stage two options paper, stakeholders generally rejected mandatory central clearing on the following grounds:

- Central clearing requires a high degree of standardisation of OTC derivatives contracts. Bespoke OTC derivatives contracts play an important role in risk management and their standardisation would actually increase risk as participants are forced to employ imperfect hedges.[333]

- Central clearing would exacerbate the risk of contagion in periods of high price volatility because of the requirement to put up variation margins, which can be quite substantial.[334]

AFMA provides the following example of margining costs: for a contract position of 10TWh that was exchange traded, the initial margins required would be $32 million

332 Ibid, p3.

333 Submissions to the stage two options paper by AFMA, 20 December 2013, p7; and Macquarie Generation, 20 December 2013, p4

334 Submissions to the stage two options paper by AGL, 18 December 2013, p7; Macquarie Generation, 20 December 2013, p4;

and a $5/MWh adverse movement in price would require a further $50 million in variation margin.[335]

Stakeholder submissions to the second interim report expressed support for the Commission's draft advice that mandatory central clearance of OTC derivatives contracts is inappropriate for NEM participants at this time because it would increase costs and discourage the use of OTC derivatives to hedge market risk in the NEM.[336] EnergyAustralia noted that this could lead to inefficiencies in how participants manage market risk.[337]

11.5.3 Commission considerations and conclusions

A mandatory central clearing requirement as envisaged by the G20 recommendations aims to capture those OTC derivatives contracts which are standardised to a sufficient degree so that they can be cleared through a clearing house. As such, the G20 recommendations do not contemplate that all OTC derivatives contracts be centrally cleared. The Commission notes that the financial regulators have not proposed or considered imposing a central clearing requirement for electricity OTC derivatives. The financial regulators have recommended that no central clearing requirement be imposed on 'non-dealers' at present.[338]

For the proportion of electricity OTC derivatives contracts that would be suitable for central clearing, a clearing house would reduce counterparty risk by guaranteeing performance of the transaction. Further, on a whole-of-market level, the clearing house could reduce overall systemic risk by netting off transactions.

Introduction of such a measure would likely impose additional costs on participants, in the form of an obligation to meet margining requirements. It is not clear that NEM participants are well placed to meet the additional cash or collateral requirements. Margining requirements for centrally cleared OTC derivatives in addition to existing margin requirements for exchange-traded derivatives create additional cash flow demands, which creates a cash flow risk. During periods of high price volatility this could place significant financial burdens on NEM participants and discourage the use of derivatives as a hedging instrument. This could increase the risk of financial contagion in the NEM instead of reducing it.

A number of other unintended consequences could also result. Participants could seek to hedge internally instead of hedging with other participants, thereby increasing vertical integration. Also, the extra costs and decrease in the liquidity of available hedges could disproportionately affect small retailers and therefore impact on retail

335 Submission by AFMA to the stage two options paper, 20 December 2013, p9.

336 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p1; Alinta, 25 September 2014, p2; EnergyAustralia, 3 October 2014, p10; ERAA, 2 October 2014, p1; ESAA, 26 September 2014. p1; GDF Suez, 25 September 2014, p2; Origin, 25 September 2014, p1; Stanwell, 25 September 2014, p2.

337 Submission to the second interim report by EnergyAustralia, 3 October 2014, p10.

338 APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, April 2014, p4 and p47.

competition in the NEM. This could also incentivise participants to 'game' the requirement and avoid a clearing obligation by introducing bespoke elements in their standard contracts.

NEM participants generally use OTC derivatives contracts as a hedge to manage market risks, rather than for the purposes of speculative trade. As a result, the benefits from mandatory central clearing of such OTC derivatives contracts in terms of reduction of overall systemic risk are likely to be limited. This point has been recognised in the overseas implementation of the G20 reforms where exemptions to the clearing requirements for non-dealers such as electricity businesses trading OTC derivatives have been introduced. Such exemptions are either based upon the size of the participant's trading book or whether the OTC derivative trade is a physical hedge.[339]

The reduction in overall NEM systemic risk from introducing this measure is likely to be limited because only a proportion of the electricity OTC derivative contracts will be suitable for central clearing. This would undermine the effectiveness of such a measure if there is a particularly high proportion of non-standardised electricity OTC derivative contracts compared to other types of OTC derivatives contracts, and a significant number of NEM participants would not be required to centrally clear.

For these reasons, the Commission considers that mandatory central clearing of OTC derivatives contracts would not be likely to meet the NEO and should not be introduced for electricity businesses at this time. This does not preclude NEM participants from assessing the potential usefulness of central clearing as a risk management tool.

An alternative approach, which goes beyond the G20 central clearing measure, could be to combine the clearing of all transactions -spot, futures and OTC derivatives - onto a single clearing platform. Such a proposal could generate market efficiencies through:

- lower hedging costs as duplication of prudential and margining requirements can be avoided;
- more effective use of collateral across the spot and contract markets; and
- operational and netting efficiencies as circular cash flows can be avoided.

Previous AEMO and Commission studies have identified benefits from combining and offsetting spot and OTC derivatives transactions and spot and futures transactions.[340]

The potential for such cost savings could spur initiatives that seek to achieve this and it is therefore appropriate to leave commercial providers and industry to work together to drive the development of such models that best meet market needs.

339 See AEMC, *Stage two options paper - NEM financial market resilience review*, Appendix A.

340 See, for example, AEMC, *Review into the role of hedging contracts in the existing NEM prudential framework*, 30 June 2010.

For example, AEMO and the ASX announced that they are collaborating to identify solutions that enable derivative and physical trades to be cleared and settled through a more integrated process. This will facilitate offsets between the different trades.[341] AEMO and the ASX indicated that the benefits for participants would be the reduced amount of capital they would be required to provide, while still meeting the prudential standard, in addition to administrative cost savings.

11.6 Capital and margining requirements for non-centrally cleared OTCs

Overview of advice

Currently, there is no proposal from the financial regulators or from the Government to impose capital or margin requirements for electricity companies.

The Commission considers that introducing capital or margining requirements for OTC derivative transactions would increase the cost of hedging as participants would have to obtain and deploy additional working capital to manage the margin payments under this requirement. This could have the effect of merely converting credit risk into cash-flow risk for participants or raising the cost of hedging, without any material reduction in systemic risk in the NEM. Therefore the Commission advises against introducing this measure to NEM participants.

11.6.1 Description of the measure

Under the G20 recommendations, OTC derivatives contracts that are not centrally cleared should be subject to certain capital requirements. The G20 leaders have also asked the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO) to develop standards for margin requirements for non-centrally cleared derivatives. This reflects a consideration that there is generally a higher risk associated with these derivatives. OTC derivatives may not be centrally cleared because they are not sufficiently standardised or because no clearing house is willing to clear a particular class of derivatives.

Capital and margining requirements attempt to reduce the risk of contagion by ensuring that collateral is available to offset losses caused by the default of a derivatives counterparty. Capital and margining requirements can also have broader benefits, by reducing the system's vulnerability to potentially de-stabilising shocks and limiting the build-up of uncollateralised exposures within the NEM. It is also considered that margining requirements on non-centrally-cleared derivatives will encourage parties to trade more contracts through central clearing because it reduces the cost disadvantage associated with central clearing houses.

341 AEMO, *Energy Market Update*, June 2014, p9.

Revised capital requirements have been adopted by the BCBS, which are being implemented by BCBS members in each jurisdiction. The BCBS and IOSCO have jointly published international standards on margin requirements. Alongside margining requirements, a number of other techniques may contribute to reducing the risks in the non-centrally cleared OTC derivatives market. IOSCO has also recently published risk mitigation standards for non-centrally cleared OTC derivatives, including standards for documentation, confirmation, portfolio reconciliation and compression, valuation, and dispute resolution.[342] The international standards on margin requirements propose all financial firms and systemically important non-financial entities that engage in non-centrally cleared OTC derivatives must exchange initial and variation margins as appropriate to the counterparty risk posed by the underlying transactions.[343] However, all of these international standards apply to financial entities that have eight billion Euro or more in OTC derivatives holdings and it is expected that NEM participants would not meet this threshold.[344]

Current status of implementation in Australia

APRA has implemented the BCBS revised capital standards for authorised deposit-taking institutions (ADIs) in Australia as of January 2013, which has met Australia's commitment to introduce higher capital requirements for OTC derivatives.

The financial regulators are considering the implementation of the BCBS-IOSCO recommendations in the context of developments in key jurisdictions.[345]

11.6.2 Stakeholder submissions

The Commission's second interim report contained the draft advice recommending against introducing capital or margining requirements for OTC derivative transactions for electricity participants because this would increase the cost of hedging and have the effect of shifting credit risk into cash-flow risk, without any noticeable reduction in systemic risk in the NEM.[346]

In their submissions to the stage two options paper, stakeholders generally opposed implementation of a margining requirement, for the following reasons:

- Imposing margining requirements would increase cash flow pressures on participants and would therefore increase the cost of hedging. The cash flow risk could be a greater risk than the exposure to counterparty credit risk. Increased

342 IOSCO, Risk Mitigation Standards for Non-centrally Cleared OTC Derivatives, 28 January 2015.

343 BCBS-IOSCO, *Margin requirements for non-centrally cleared derivatives*, September 2013.

344 Ibid, p8; IOSCO, Risk Mitigation Standards for Non-centrally Cleared OTC Derivatives, 28 January 2015, p5.

345 APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, April 2014, p5.

346 AEMC, Second Interim Report, NEM financial resilience, August 2014, pp157-160.

hedging costs could either lead to higher consumer prices, or lead to participants taking on more market risk which in turn would increase overall risk.[347]

- Analysis by Seed Advisory commissioned by the Private Generators Group(PGG), NGF and ESAA demonstrated that the main contagion risk of OTC counterparty default lies in the cost for the non-defaulting counterparty to recontract lost hedges. Seed Advisory considered that margining does not contain this risk, but rather increases the cost of capital required thereby aggravating contagion risk.[348]

- The costs associated with margining may create barriers to entry for new entrants, stifling competition in the NEM.[349]

- Margining requirements also have the potential to change the balance sheet of participants away from lower cost debt financing to higher cost equity financing in order to avoid the cost of hedging interest rate or foreign exchange risk of debt arrangements. This in turn has the potential to lower the profitability of the participant and likely return to shareholders.[350]

Regarding the cash flow risks associated with margining, the NGF provided the following an example which is presented in box 11.1.[351]

Stakeholder submissions to the second interim report expressed support for the Commission's draft advice recommending against introducing capital and margining requirements for NEM participants.[352] GDFSAE noted that such measures would not adequately take account of the specific nature of financial risks in the electricity sector or the important distinctions from the financial sector.[353] EnergyAustralia identified that margining and capital requirements would increase the cost of hedging and reduce the options available to participants to manage market risk.[354]

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347 Submission to the stage two options paper by AGL, 18 December 2013, p6; EnergyAustralia, 19 December 2013, p10; ERM Power, 18 December 2013, p17; GDF Suez, 19 November 2013, p6; NGF, 19 December 2013, appendix; and Origin, 19 November 2013, p13.

348 Submissions to the stage two options paper by AFMA, 20 December 2013, p11; Alinta Energy, 18 December 2013, p2; EnergyAustralia, 19 December 2013, p10; ESAA, 19 December 2013, p4; GDF Suez, 19 November 2013, p5; InterGen, 19 December 2013, p5; and Origin, 19 November 2013, p12.

349 Submission to the stage two options paper by AGL, 18 December 2013, p6; and EnergyAustralia, 19 November 2013, p10.

350 Submission to the stage two options paper by Origin, 19 November 2013, p17.

351 Submission to the stage two options paper by the NGF, 19 December 2013, appendix.

352 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p1; Alinta, 25 September 2014, p2; EnergyAustralia, 3 October 2014, p10; ERAA, 2 October 2014, p1; ESAA, 26 September 2014. p1; GDFSAE, 25 September 2014, p1-2; Origin, 25 September 2014, p1; Stanwell, 25 September 2014, p2.

353 Submission to the second interim report by GDFSAE, 25 September 2014, p1.

354 Submission to the second interim report by EnergyAustralia, 3 October 2014, p10.

Box 11.1: Example margining requirement

Electricity participants typically seek to hedge a material portion of their portfolio output at least 3 years in advance and hence relatively long-term base load hedges are highly desirable for market risk management purposes. This means that under mandatory margining, on any given day, a participant would be required to have the net liability value of its entire hedge book for 3+ years lodged with a clearing participant. The resulting margining would put considerable cash flow strain on participants as the mark to market value of an entity's outstanding contract position is not correlated, in time, with its short term spot market and contract settlements.

In recent electricity market history, it has been large futures positions that have been the cause of great financial stress to NEM participants. For example, the forward curve increases experienced during the 2007 Queensland drought and resultant futures margin calls left some participants either close to, or breaching, their AFSL Adjusted Surplus Funds requirements. Rather than continuing to meet those margin call requirements, some participants chose to close out their futures positions (effectively forfeiting the market risk management benefits of those contracts).

For example, in 2007, the contract market was very volatile due to supply constraints caused by the drought. This resulted in a substantial jump in the contract market multiple calendar years out. On 14 May 2007, base contract prices for the calendar year 2009 rose from $57 per MWh to $70 per MWh in less than a week. The off peak contract also jumped from $50 per MWh to $70 per MWh during the same period.

If a participant had, for example, an aggregate of 1000MW calendar 2009 contracts acquired via the exchange, and assuming daily price changes averaged $3/day, the participant, would have to pay the exchange over $26 million per day in variation margins ($3 * 1000MW * 8760 hours), for at least five days straight. The impact would be increased if the participant also had contracts for other calendar years.

11.6.3 Commission considerations and conclusions

Margining requirements would increase the level of financial reserves available in the market to mitigate counterparty risk. Chapter 2 explains that it does not appear to be standard practice for NEM participants to exchange collateral for every OTC derivative transaction they undertake and sets out stakeholder views on why this is the case.

Both capital and margining perform risk mitigation functions but are distinct in a number of ways. First, margining is 'defaulter-pay'. This means that, in the event of a counterparty default, margining protects the surviving party by absorbing losses using the collateral provided by the defaulting entity. By contrast, capital adds loss absorbency to the system because it is 'survivor-pay', ie using capital to meet such losses consumes the surviving entity's own financial resources.

Second, margining is considered to be more 'targeted' and dynamic, with the margining amount being adjusted over time to reflect changes in the risk of the trade. By contrast, capital is shared collectively by all the entity's activities and may thus be more easily depleted at a time of stress. It may also be more difficult to rapidly adjust it to reflect changing risk exposures.

Both requirements would increase the cost of hedging. Participants would have to obtain and deploy additional working capital to manage the cash-flows. Box 11.1 provides an example of the potential impact of variation margins in extreme market conditions.

The increased demands on working capital could result in further cash flow risk and possibly the withdrawal of liquidity in the contract markets. Obtaining the necessary additional working capital to fund margin requirements for OTC derivatives in addition to exchange-traded derivatives can be more difficult for electricity companies highly leveraged businesses and therefore could create a bias towards certain financial structures.

Further, the cost of complying with additional margin requirements could disproportionately affect smaller retailers, thereby having a negative impact on retail competition in the NEM. The additional cost of such a measure on smaller retailers would depend on if and how much collateral they are already required to provide under their hedge contracts.[355] Similar to a mandatory clearing requirement, the Commission considers that the costs associated with margining or capital could also lead to increased vertical integration.

Introducing margining or capital requirements for non-centrally cleared OTC electricity derivative contracts would probably make it more costly for NEM participants to manage market risk in the NEM.

The Commission notes that increasing capital requirements would not create the same magnitude of cash-flow risk for participants. Higher capital reserves could act as a financial buffer that could cushion the effects of financial shocks, including a counterparty default, and improve the ability of the market to absorb the impacts of the failure of one participant.

The Commission considers a case has not been established for requiring NEM participants to increase their capital reserves or be subject to margin requirements, as the costs of such a measure are likely to outweigh the benefits.

355 It is the Commission's understanding that, often, smaller retailers are already required to provide certain collateral to their counterparties in order to obtain hedge contracts.

11.7 Platform trading

Overview of advice

The Commission advises that the development of electronic trading platforms for trading OTC electricity derivatives is more appropriately driven by NEM participants' demand for these services rather than mandating the use of such platforms. This is consistent with approach of the financial regulators who have not recommended the imposition of mandatory platform trading requirements on any classes of derivatives or on any classes of participants.[356]

11.7.1 Description of the measure

This measure, as envisaged under the G20 commitments, would introduce a requirement on participants to conduct OTC derivative transactions, where appropriate, via an electronic trading platform.[357]

The purpose of trading platforms is to provide a facility that matches buy and sell interests between participants. To the extent trading information is publicly released, trading platforms bring greater transparency to the OTC derivative market. Via such platforms, information about OTC derivatives is made available to all market users. Improved price transparency could allow better comparability of OTC products and could contribute to 'market making' and more efficient pricing.

Trading on an electronic trading platform can be open to a broad set of participants and may facilitate access to the market. Therefore, it may in turn decrease the level of counterparty concentration in a derivative market.

In order to be traded on such a platform, OTC derivatives transactions would need to be sufficiently standardised. As electricity OTC derivatives can be non-standard, such a requirement would only capture a proportion of the OTC electricity derivatives market.

Current status of implementation in Australia

In February 2014, Treasury proposed that no decision be taken on any mandatory requirements until subsequent reviews by the financial regulators. This follows recommendations from the financial regulators in their 2013 report, in which they indicated that they did not make any recommendations regarding the mandating of trading on electronic platforms at that stage and that they will continue to follow the developments in this space.[358]

356 APRA, ASIC, RBA, *Report on the Australian OTC Derivatives Market*, April 2014, p4 and p50.

357 Electronic trading platforms provide a facility through which OTC derivatives can be traded electronically and multilaterally. In return for its services, a trading platform charges fees payable by participants.

358 APRA, ASIC, RBA, *Report on the Australian OTC derivatives Market*, July 2013.

In their April 2014 report, the financial regulators took the view that it is not yet appropriate to recommend a mandatory platform trading obligation, for three key reasons:[359]

- Before making any recommendation on mandatory platform trading, the regulators would prefer to see further consensus emerge across key jurisdictions on the characteristics of relevant trading platforms for such purposes.

- Survey data on market liquidity, and the extent to which Australian participants are using non-fully electronic execution channels, suggest that liquidity in the local market is not high by international standards in many asset classes. They also suggested that market participants continue to predominantly use other execution channels, presumably for a range of commercial reasons.

- Treasury is undertaking a review of the Australian Market Licence regime, and the regulators would prefer to await the outcome of that review prior to recommending any mandatory trading obligations.

The regulators noted that they will continue to monitor developments to gauge the implications of overseas regimes for methods of execution and liquidity in the Australian OTC derivatives market, and more generally monitor evolving trends in the utilisation of electronic trading platforms.

They noted that international consistency may become a higher priority if overseas jurisdictions were to implement mandatory platform trading obligations for products or asset classes widely traded in Australia, including asset classes that may be subject to mandatory clearing obligations.

Consequently, the regulators indicated they may consider it necessary to reassess the case for mandatory trading obligations for such products, primarily on international consistency grounds, and potentially make recommendations to the government ahead of the next market assessment.[360]

11.7.2 Stakeholder submissions

The Commission's second interim report contained the draft advice that voluntary development of electronic trading platforms for NEM participants was more appropriate than introducing a mandatory requirement for platform trading of OTC derivatives.[361]

In their submissions to the stage two options paper, participants considered that trading OTC derivatives on an electronic platform should not be mandated. AGL noted for example that this would require a high degree of standardisation, which would make it difficult for participants to manage the underlying risk of spot market volatility

359 APRA, ASIC, RBA, *Report on the Australian OTC derivatives Market*, April 2014, p4.

360 Ibid.

361 AEMC, Second Interim Report, NEM financial resilience, August 2014, pp161-163.

in the NEM.[362] ERM Power made the same point and also did not see value in developing electronic platforms in competition with the exchange.[363]

Stakeholders supported the Commission's draft advice in its second interim report recommending against mandating electronic trading platforms.[364] EnergyAustralia noted that the development of electronic trading platforms is more appropriately driven by market demand for the service and that mandating the use of what is effectively a monopoly service will increase costs.[365]

11.7.3 Commission considerations and conclusions

Platform trading requires a high degree of standardisation which is unlikely to be possible for all electricity OTC derivatives. The benefits of platform trading for electricity OTC derivatives may be different from other types of derivatives that may be more standardised. The Commission notes that there is substantial difference in the level of liquidity in electricity OTC derivative contracts compared to other OTC derivatives markets. Therefore there may not be sufficient liquidity for electricity OTC derivatives to be mandatorily traded on platforms. Consequently, the benefits of platform trading to reduce NEM systemic risk may be limited.

For these reasons, the Commission remains of the view that trading of OTC electricity derivatives on an electronic trading platform should not be mandated as it is more appropriately driven by participants' demand for such services. Platform trading is currently not mandated for any of the derivative classes and the Commission notes the financial regulators' view that it is not yet appropriate to recommend a mandatory platform trading obligation for any of the derivative classes.

11.8 Assessment against the National Electricity Objective

The G20 recommendations contain a package of measures specifically targeted at OTC derivatives. Their aim is to reduce systemic risk by increasing transparency or reducing the counterparty credit risk that arises under these contracts.

There are a number of reasons why the Commission advises against applying such measures to participants at this time. Any potential benefit associated with such measures in preventing threats to financial stability in the NEM is not considered sufficient to justify their costs. Furthermore, such measures could have a number of unintended consequences on competition and market structure in the NEM. However,

362 Submission to the stage two options paper by AGL, 18 December 2013, p7.

363 Submission to the stage two options paper by ERM Power, 18 December 2013.

364 Submissions to the second interim report by AFMA, 3 October 2014, p3; AGL, 25 September 2014, p1; Alinta 25 September 2014, p2; EnergyAustralia, 3 October 2014, p10; ERAA, 2 October 2014, p1; ESAA, 26 September 2014. p1; GDF Suez, 25 September 2014, p2; Origin, 25 September 2014, p1; Stanwell, 25 September 2014, p2.

365 Submission to the second interim report by EnergyAustralia, 3 October 2014, p10.

the Commission notes that the Government may wish to implement the G20 reforms for broader policy reasons.

Given the current differences between the electricity market and the financial sector, such measures are unlikely to be needed. A failure of a large participant would not cause major instability to the overall financial system given the extent of the exposures the financial sector has towards the NEM.

Risk management in the NEM involves a continuous trade-off between various sources of risk, of which counterparty risk is only one. The G20 reforms are primarily focussed on addressing counterparty risk under OTC derivatives contracts. Accordingly, they may have the unintended effect of discouraging participants from using OTC derivative instruments in favour of, say, taking more spot market exposure. The reforms could result in participants changing their risk management practices so that they become less exposed to credit risk, but are more exposed to other types of risk.

The Commission opposes introducing any measures that would significantly undermine participants' abilities to make commercial decisions on how best to manage their own risks. Forcing participants to move OTC derivatives contracts onto a central clearing platform would limit choice and increase costs.

Such a move could disproportionately harm smaller retailers and create a barrier to entry for new entrants, thereby reducing competition in the NEM. Smaller participants may especially rely on OTC derivatives contracts as they may not be able to meet the daily margining requirements under exchange traded contracts. Reducing liquidity in the OTC derivative market would make it more difficult for small retailers to manage market risk in the NEM.

Further, increasing the regulation of OTC derivatives contracts could encourage more vertical integration, if participants consider that the best way of overcoming costs associated with risk management options is to hedge risks internally by integrating market activities.

12 Implementation process

The preceding chapters have outlined a range of recommendations to improve the resilience of the NEM to manage and respond to the financial distress and failure of participants. This chapter sets out the implementation process to progress the recommendations set out in this final report.

The implementation process would include changes to the NERL and NER to implement the recommended changes to the ROLR scheme and process for suspending a participant under external administration from the NEM. A paper has been published with the final report setting out the detailed changes required to the NERL and draft rules to implement the proposed changes to the NER.

In relation to the proposed decision making framework to respond to the failure of a SIMP, the Commission recommends that the COAG Energy Council request jurisdictional energy departments to undertake work to develop the necessary legislative amendments and rule changes needed to implement this framework.

The Commission also recommends that jurisdictional energy departments, in consultation with Commonwealth and State and Territory Treasuries, develop the detailed design of stability arrangements in the NEM. As discussed in Chapter 7, these stability arrangements would represent an alternative to the ROLR scheme and standard forms of external administration that could be applied to respond to the failure of a SIMP. The design and implementation of the stability arrangements would require a package of legislative and regulatory changes and funding provisions, extending beyond the electricity regulatory framework, including changes to the Corporations Act.

In addition, the Commission has provided advice for the COAG Energy Council to consider in relation to additional risk management and transparency measures to prevent threats to NEM financial stability, and on the application of G20 OTC derivatives reforms to electricity participants.

Table 12.1 below sets out a summary of the Commission's final recommendations and the next steps required for implementation if they are endorsed by the COAG Energy Council.

Table 12.1 Summary of final recommendations and next steps for implementation

Issue	Recommendation	Implementation process
Responding to a large participant failure (Chapter 6)		
Decision making framework to respond to the failure of a SIMP	A separate decision making framework should be established to facilitate a timely, proportionate and suitable response to a SIMP failure to minimise disruptions to customers and maintain the financial stability of the NEM and public confidence. Under this decision making framework, decisions normally made by AEMO and the AER would be elevated to the Chair of the COAG Energy Council or their delegate, who would be responsible for making decisions in response to a SIMP failure. A 'NEM Resilience Council' would be established, comprising of existing market and regulatory bodies, to advise the Chair of the COAG Energy Council on the appropriate response and factors to consider.	COAG Energy Council to request jurisdictional energy departments to develop the necessary legislative amendments and rule changes to implement the decision making framework to respond to the failure of a SIMP. A draft scope of work is set out in Appendix D.
Stability arrangements (Chapter 7)		
Alternative stability arrangements, involving a form of special administration, which could be applied when a SIMP fails	As the ROLR scheme and standard forms of external administration may not be effective to minimise disruption to consumers and maintain NEM financial stability and public confidence in response to the failure of a SIMP, the Chair of the COAG Energy Council should be able to apply alternative stability arrangements, involving a form of special administration.	COAG Energy Council to request jurisdictional energy departments to form a working group, in consultation with Commonwealth and State and Territory Treasuries, to develop the detailed design of the stability arrangements for the NEM. A draft scope of work is set out in Appendix E.

Issue	Recommendation	Implementation process
ROLR scheme (Chapter 8)		
Cost recovery arrangements for ROLRs	The cost recovery arrangements for ROLRs should be amended to provide ROLRs with greater certainty that they can quickly recover the reasonable costs they incur following a ROLR event. The recommended changes to the cost recovery arrangements include: • amending the principles for cost recovery to reduce uncertainty in relation to cost recovery; • providing further detail in relation to the types of costs the ROLR is able to recover; • specifying the time period the ROLR has to submit a cost recovery application; and • enabling the AER to undertake a fast track cost recovery process for ROLR costs which are clearly identifiable and quantifiable.	Changes to the NERL are required to implement these recommendations. Details of the required changes to the NERL have been published in a paper with this final report. COAG Energy Council to develop these changes to the NERL. The Commission recommends that the COAG Energy Council consider applying the proposed changes to the ROLR scheme to gas retailers to provide for a simpler drafting and implementation process as the NERL currently applies uniform provisions where possible to both electricity and gas retailers.
Delayed designation of ROLRs	The AER should be able to delay the designation of ROLRs by 24 hours following a ROLR event to increase the potential for the AER to appoint multiple ROLRs.	
Enhancements to the way ROLR arrangements apply to very large customers	To reduce the risks to the designated ROLR and financial system stability in the NEM, the following changes are proposed in relation to how the ROLR scheme is applied to very large customers who consume 10GWh a year or more:	

Issue	Recommendation	Implementation process
	• If they had not already done so before a ROLR event, very large customers would have the ability to organise their own alternative retailer within seven days of the ROLR transfer date. Transfers to an alternative retailer would be accelerated by AEMO where the alternative retailer has agreed to take liability for the very large customer's load from the ROLR transfer date; • All customer contracts for all large customers (including very large customers) would be required to include a notice explaining the ROLR obligations and requirements applicable to them; and • The AER would be required to notify very large customers on an annual basis of the implications of a ROLR event and the benefits of arranging an alternative retailer.	
Delay in the ROLR's additional credit support requirements for AEMO and DNSPs	To reduce the financial risks on the ROLR and the potential for cascading retailer failures, the increased credit support that the designated ROLR provides to AEMO and DNSPs to reflect its ROLR load should be delayed by a five week period from the ROLR transfer date.	Changes to the NER are required to implement these recommendations. Draft rules have been published in a paper with this final report. COAG Energy Council to submit rule change requests to the Commission to implement these changes to the NER.
Participant suspension from the NEM (Chapter 9)		
Clarification of AEMO's ability and framework for not suspending market participants under external	To promote financial system stability in the NEM:	Changes to the NER are required to implement this recommendation. Draft rules have been published

Issue	Recommendation	Implementation process
administration	• AEMO's ability to not suspend one or more of a participant's registrations, or a subset of its activities under a particular registration, from the market should be clarified for all market participants; • participants under external administration should not be precluded from participating in the market; and • AEMO should be required to apply a defined framework in determining whether and to what extent to suspend a participant under external administration. This would assist to minimise risks to the market and other participants.	in a paper with this final report. COAG Energy Council to submit a rule change request to the Commission to implement these changes to the NER.
Risk management and transparency measures (Chapter 10)		
Additional regulatory measures to prevent threats to the NEM's financial stability through the regulation of individual market participants	Additional risk management and transparency measures are not recommended as the costs of these measures are likely to outweigh the benefit of reducing risk in the NEM.	COAG Energy Council to consider advice
Advice on the G20 measures for OTC reform (Chapter 11)		
Advice on the potential application of G20 reforms relating to OTC derivatives for electricity market participants	Under current circumstances, the costs of implementing the G20 reforms for electricity market participants in the NEM would outweigh any benefits when considered in relation to the NEO.	COAG Energy Council to note advice The Commission notes that the Commonwealth Treasurer is responsible for decisions in relation to the implementation of the G20 OTC reforms.

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AFMA	Australian Financial Markets Association
AFSL	Australian Financial Services Licence
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investments Commission
ASX	Australian Securities Exchange
BCBS	Basel Committee on Banking Supervision
CCRO	Committee of Chief Risk Officers
COAG	Council of Australian Governments
Commission	See AEMC
CPT	cumulative price threshold
DNSP	distribution network service providers
ENA	Energy Networks Association
ESAA	Energy Supply Association of Australia
G20	Group of 20 countries
GFC	global financial crisis
IOSCO	International Organisation of Securities Commissions
MCE	Ministerial Council on Energy
MCL	maximum credit limit
MPC	market price cap
MWh	megawatt hour

NECF	National Energy Customer Framework
NEL	National Electricity Law
NEM	National Electricity Market
NEO	national electricity objective
NER	National Electricity Rules
NERL	National Energy Retail Law
NERO	national energy retail objective
NERR	National Energy Retail Rules
NGF	National Generators Forum
OSL	outstandings limit
OTC	over-the-counter
PM	prudential margin
RBA	Reserve Bank of Australia
SAR	special administration regime
SIMP	systemically important market participant
SOOR	Swap and Options Offset Reallocations

A Progress of the review

A.1 The review

COAG Energy Council request for advice

In June 2012, the COAG Energy Council 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 focussed 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 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 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 a prudent generator or retailer would be expected 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 stakeholder submissions 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 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 the Commission's advice examined 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.

Stage three of the review

The third stage of the advice set out the Commission's draft advice in relation to the potential risks to system stability in the NEM and its recommendations to improve the resilience of the NEM to manage and respond to the financial distress and failure of participants.

Second Interim Report - August 2014

The Second Interim Report set out:

- the risks to financial system stability in the NEM arising from financial interdependencies and the ROLR scheme;
- an assessment of the existing mechanisms to manage risks to financial system stability in the NEM;
- recommendations on how to strengthen, enhance or supplement existing mechanisms, including changes to the ROLR scheme, arrangements for participant suspension, and a separate proposed framework for responding to large participant failure; and
- advice on the potential application of G20 reforms in relation to OTC electricity derivatives for NEM participants.

This Final Report sets out the Commission's final advice and recommendations, after considering stakeholder views on the Second Interim Report.

In September 2014, the Commission also published a paper setting out some of the major regulatory reforms that have occurred in the financial sector since the GFC and the implications of this for its advice on the financial market resilience of the NEM.

A.2 Working group and advisory committee

The COAG Energy Council's request for advice required 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 comprised 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 also established an advisory committee to assist in considering all relevant policy and regulatory requirements. The advisory committee comprised 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 submissions on the second interim report

The AEMC received 13 submissions on the second interim report. The table below provides a summary of the issues raised by stakeholders in their submissions and the Commission's response to each issue.

A copy of submissions received can be found on the AEMC website at www.aemc.gov.au.

Table B.1 Summary of submissions on the second interim report

Stakeholder	Comment	AEMC response
Risks to NEM financial stability		
GDFSAE	GDFSAE submitted that experience to date has shown the NEM to be resilient to participant failure and supply uncertainties, and with the exception of certain elements of the ROLR provisions, the review has not been able to identify specific shortcomings. (GDFSAE, p. 1)	The NEM has operated effectively to date, with businesses entering and exiting the market without causing financial instability in the NEM. The likelihood of financial instability occurring in the NEM involves many unpredictable factors. The likelihood is uncertain and unknowable. The failure of a very large retail business could threaten NEM financial system stability if financial distress was transmitted to other businesses, as well as creating broader impacts for the economy. As set out in Chapters 3, 4 and 5 of the final report, current arrangements are not adequate to manage a large retailer failure.
AFMA	The AFMA submitted that the report fails to mention the ways in which OTC markets manage risk. It considered that this omission, coupled with	It is considered that OTC counterparty default could more likely lead to financial instability in the NEM than spot market or exchange trading. This is

Stakeholder	Comment	AEMC response
	the detailed description of how financial contagion “could be transmitted” through OTC contracts, appears to have the intention of elevating a risk to a level greater than that which is observed by evidence. (AFMA, p. 1) The AFMA also submitted that the report’s statement that “it does not appear to be standard practice among participants in the NEM to exchange collateral” seems to be at odds with ASIC’s review, in which the use of credit support annexes, as well as a significant number of risk management practices, is used by more than 50 per cent of market participants. (AFMA, p. 2) It considered that the combination of supervision of NEM participants and effective control process implemented by those entities active in OTC electricity derivative markets should give the AEMC considerable comfort that a financial contagion from a default by a NEM participant is unlikely in the extreme. (AFMA, p. 2)	because for the spot market and exchange traded derivatives, regulatory and compliance arrangements are in place to manage the risk of settlement shortfall and counterparty default, while risks associated with OTCs are dependent on the circumstances and practices of individual participants. The Commission's considerations on this matter are set out in Chapter 2 of the final report. The Commission agrees that participants in the NEM often, but not always, exchange collateral for OTC transactions as a safeguard in case a counterparty defaults on its obligations. Further details are set out in Section 2.3.3 of the final report. As described in Chapter 2, the Commission agrees that managing risks concurrently involves continuous trade-off decisions between the different types of risk.
EA	EA submitted that the implication from the report is that OTC derivatives are inherently riskier than futures contracts. It considered that this reflects a narrow focus on credit risk that is inconsistent with the report’s recognition that participants need to manage market, credit and cash flow risk concurrently. (EA, p. 3) It also submitted that the inherent risk for retailers and generators is the market risk that is created by their decision to generate or retail electricity.	

Stakeholder	Comment	AEMC response
	Hedging with OTC derivatives can reduce market risk, but increase exposure to counter-party credit risk. Futures contracts can reduce credit risk, but increase exposure to cash flow risk. (EA, p. 3)	
Responding to a large participant failure		
AEMO	AEMO considered that the proposed incremental improvements to ROLR measures would be insufficient to make ROLR effective in the context of a large retailer or gentailer default. (AEMO, p. 1)	Even taking into account the proposed changes to the ROLR scheme, the Commission is of the view that current arrangements may not be effective in the event of a large retailer failure to minimise disruption to consumers and maintain NEM financial stability and public confidence. In this regard the Commission has recommended that an alternative regime to manage and respond to the failure of a large retailer. The report outlines how the current ROLR arrangements are inadequate – see Chapters 3 and 5.
AER	The AER agreed that addressing large retailer failures through the ROLR regime would result in unacceptably high market concentration, and that large retailer failures need to be managed outside the ROLR regime. It therefore supported further exploration of stability arrangements in the form of a special external administration regime. (AER, p. 1)	
Alinta	It is not clear to Alinta that the risks, costs and policy changes discussed in the report justify changes to cater for the newly designated SIMPs. It suggested that these recommendations provide tenuous benefits when compared with the more concrete proposals that directly concern the operation of the NEM. (Alinta, p. 3)	
GDFSAE	GDFSAE supported the proposed classification of large retailers as SIMPs, and the establishment of a separate framework to facilitate suitable response to a SIMP in distress/failure. It submitted that care will be needed with the definition of the	Section 6.1 of the final report sets out criteria for defining SIMPs, including retail load, extent of NEM participation, and ownership. Only participants whose failure would cause significant and immediate financial disruption to the electricity

Stakeholder	Comment	AEMC response
	SIMP to avoid a sudden increase in compliance burden for a gradually growing retailer that crosses the defined threshold. (GDFSAE, p. 2)	market and would be likely to threaten financial system stability would be classified as SIMPs. The NEM Resilience Council would assess and advise on which participants meet the classification of SIMP, as described in Section 6.2.4 of the final report. Potential SIMPs would also be consulted prior to being classified as a SIMP.
Stanwell and AFMA	Stanwell does not support the proposal to designate some entities as SIMPs, and particularly does not support the proposal to treat such entities differently than smaller entities. Stanwell and AFMA considered that such action risks establishing certain entities as "too big to fail" and introduces moral hazard. It was considered that in such an event, the people best placed to determine a course of action are those most intimately involved - that is, the participants and standard regulators. (Stanwell, p. 3; and AFMA, pp. 2-3)	The Commission notes the concerns raised by stakeholders but continues to consider that an alternative framework is required to respond to the failure of a large participant, because of the impacts that such a failure would have on broader financial system stability in the NEM. The objective of the Commission's proposed framework for responding to a SIMP failure is to minimise disruption to consumers and maintain NEM financial stability and public confidence in the event of a SIMP failure, rather than preventing an individual participant from failing or leaving the market.
ESAA and EA	The ESAA has concerns with the creation of a new class of market participant which may lead to differential treatment. All businesses, regardless of their size should succeed or fail on their merit. It considered that the report seemed to indicate that the NER may be applied differently to SIMPs, in the event they experience financial distress. Any variance in the treatment of market participants is likely to have an adverse impact on the market. (ESAA, p. 2) EA considered that introducing different arrangements and obligations for different classes of retailers (SIMPs and others) would create new	

Stakeholder	Comment	AEMC response
	distortions in the retail market and complex boundary issues as market shares evolve. (EA, p. 6)	
Elevated decision making and establishment of a NEM Resilience Council		
AER	The AER agreed that a separate framework is required for responding to the failure of a SIMP, and that a single decision-maker, that is responsible for intergovernmental co-ordination, may be appropriate in such a situation. (AER, p. 3) It considered that the events and circumstances that would be an appropriate trigger to initiate the consideration of the NEM Resilience Council could be based on the events, circumstances and matters that are set out in ss. 130(1) and 130(2) of the Retail Law. (AER, p. 3)	The Commission acknowledges that, at the time of a SIMP failure, it would be critical that decision-making is swift and well-informed. It is recommended that the relevant market regulatory bodies provide advice in a coordinated way through a 'NEM Resilience Council' to assist government in making the decisions that best meet the SIMP failure response objective. This advice would help the Chair of the COAG Energy Council to make more considered decisions in the short timeframes that would be required. The Chair of the COAG Energy Council would also have the ability to delegate its decision making to another person if it considers appropriate to do so. The SIMP framework recommendations, including establishing a NEM Resilience Council, are made at the principle level. To progress this proposal further, a number of implementation questions would need to be addressed. Some of these questions are highlighted in Section 6.4 of the final report. This would include the extent to which the Council's functions are set out in legislation, which may assist in promoting transparency and certainty about how the Council would act in providing advice on a SIMP failure. The Commission
GDFSAE	GDFSAE supported the proposal that government would have responsibility as the ultimate decision maker following a SIMP failure, subject to an overall objective to maintain financial system stability. It submitted that it will be important that decisions are made quickly, predictably and transparently, and that government will need to ensure that it assigns and maintains suitable and adequately briefed ongoing resources to this function. (GDFSAE, p. 2) GDFSAE considered that the proposal that government decide whether to allow a failed SIMP sufficient time to rectify its financial situation, could be effective in enabling market based solutions to	

Stakeholder	Comment	AEMC response
	work prior to imposing any regulatory outcome. However, these decisions will need to be applied consistently and impartially, so decision guidelines and principles would need to be established up front. (GDFSAE, p. 2) It considered that the COAG Energy Council chairperson would seem an appropriate choice as the government decision maker, and close cooperation with State and Territory energy ministers would be important. (GDFSAE, p. 2) Although broadly supportive of the measures GDFSAE is concerned that a federal and state decision making body such as this may not be sufficiently agile to respond quickly and decisively during a ROLR event. (GDFSAE, p. 2) GDFSAE supported the establishment of the NEM Resilience Council comprising representation from the AER, AEMO and AEMC. However, it considered that it will be important that processes are adopted to ensure that the NEM Resilience Council continues to act transparently and consistently. (GDFSAE, p. 2)	suggests that the implementation of this framework be further considered by jurisdictional energy departments. A draft scope of work for the implementation of this SIMP framework is set out in Appendix D of the final report.
Alinta	Alinta does not see the benefits associated with the proposal to create a NEM Resilience Council. (Alinta, p. 2) It considered that, the creation of a central decision making point, which in this instance means a council of public service officials to the exclusion of business owners, company management or	Section 6.2.4 addresses in detail the stakeholder concerns raised in relation to the NEM Resilience Council. This Council would have an advisory role only. In summary, the Council: - would bring together the expertise and information resources of these organisations that are needed to provide government with the best

Stakeholder	Comment	AEMC response
	administrators (but ultimately dependent on the knowledge provided by those parties), may provide little more than false comfort and creates a number of uncertainties about what government action may or may not take in the face of a large vertically integrated entity failure. (Alinta, pp. 2-3) Alinta questioned whether the NEM Resilience Council can make anything more than a guess at the likely financial consequences of a SIMP facing imminent financial distress. The greater likelihood is that government reaction and potential market intervention may actually impede the ability of financially stable market participants to insulate their businesses from the financial shock of a large vertically integrated failure. (Alinta, p. 3)	advice to respond to a SIMP failure. - would consider potential risks to financial system stability in the NEM on an ongoing basis. - could also consult other relevant bodies such as the Australian Competition and Consumer Commission, AFMA and the ASX. In addition, it could engage the assistance of experts in the fields of business, banking, insolvency, finance or other areas. - could, where appropriate, consult with industry representatives. However, the Commission notes that confidentiality concerns may limit the extent to which the Council can consult with industry in developing its advice on a specific SIMP failure. Any regulatory arrangements would only be applied where there had been sufficient time for viable market based solutions to be explored. The Commission anticipates that the relevant SIMP would be engaging with government and the NEM Resilience Council in developing the appropriate response to their failure. The NEM Resilience Council would form its advice based on existing information gathering powers and other resources available to it, so the additional regulatory burden for industry associated with the Council is likely to be limited. Advising government on the appropriate response to the failure of a large market participant would not risk the independence of the existing
Origin	Origin did not support the establishment of a NEM Resilience Council. It agreed that coordination amongst key entities will be crucial in the event of a failure of a major entity, but considered that current arrangements allow for this to occur. It considered that if it is deemed necessary to establish a group to contemplate such issues, then it must include industry, have clear objectives, and avoid scope creep. (Origin, p. 2) Origin cited the National Gas Emergency Response Advisory Committee as an example of industry and governments working together to mitigate the potential market impacts of a potential supply disruption. (Origin, p. 5)	

Stakeholder	Comment	AEMC response
AGL	AGL considered that setting up a structured decision making framework and involving several government bodies in the decision making process such as the NEM Resilience Council, may compromise the swift and flexible response that is required when dealing with a financially distressed market participant. (AGL, p. 3) While AGL considered that there is a role for government in the event that a SIMP fails, and that role should be clarified, it was concerned that setting up an additional body may add to the regulatory burden on industry. It considered that if several bodies were included in the decision making process, then it would be prudent to involve industry in the process as well. This is because market participants would be best at determining how issues such as a large transfer of customers and significant requirement for credit support would impact them. The development of any broad decisions regarding the behaviour and future of the market participant needs to consider how it aligns with the commercial decision making powers of the external administrator. (AGL, p. 3)	bodies. As long as the market institutions were adequately resourced to carry out this advice role, their core functions would not be compromised. The implementation process would provide opportunities for stakeholder consultation in the further development of this framework.
Stanwell	Stanwell does not support the creation of a NEM Resilience Council or the concentration of decision making at a single point. It considered that such action may risk the independence of the relevant bodies and may inhibit their ability to carry out their core function. (Stanwell, pp. 2-3) Stanwell submitted that the cause of a SIMP failure is likely to be complex and relatively short-notice,	

Stakeholder	Comment	AEMC response
	and may very well originate outside the NEM. In such circumstances, having regulatory bodies bound to consider the stability of the NEM as their primary driver in decision making may do more harm than good. (Stanwell, pp. 2-3)	
ESAA	The ESAA submitted that another new body would be at inevitable risk of scope creep, which would further muddy the waters. It considered that businesses prior to a collapse and administrators afterwards, are best placed to make judgements about the position of a company. If, despite these commercial settings, a body is established to assist with a large retailer collapse, its governance must be very tightly controlled. It must have very clear and limited terms of reference relating specifically to its role in relation to a ROLR event, with no scope to increase its remit further. Additionally, membership should be limited to those organisations that already need to make decisions in the event of collapse. (ESAA, p. 2)	
AFMA	The AFMA has concerns as to how the decisions that a NEM Resilience Council might make could interfere with contractual rights of parties and the powers of any external administrator, and the potential regulatory burden associated with this suggestion. (AFMA, p. 2)	
ERAA	The ERAA does not support the establishment of a NEM Resilience Council. It is concerned that the Council will simply duplicate established and existing communication mechanisms that currently exist to manage such a crisis in the NEM. It	

Stakeholder	Comment	AEMC response
	considered that rather than establish the Council, existing mechanisms could be reviewed and enhanced to ensure that there is interim government support available. (ERAA, p. 2)	
EA	EA considered that the case for the establishment of a new council has not been made. If government did decide to intervene to support a retailer, the decision would almost certainly need to be taken by the Commonwealth Treasurer. The Commonwealth Energy Minister, ASIC, the AER and AEMO would certainly make themselves available to advise the Treasurer. A memorandum of understanding between the relevant agencies may be useful, but it is not evident that there would be benefit in more complex formal governance architecture. (EA, p. 6)	
Alternative stability arrangements		
AER	The AER agreed that both the retail and generation activities of a vertically integrated energy business should be considered as part of any stability arrangements, and supports the formation of a working group to develop the detailed design of stability arrangements for the NEM. (AER, p. 3) It also considered that any stability arrangement should preserve incentives for compliance by the entity under special external administration or management. (AER, p. 3)	The Commission agrees and recommends that the COAG Energy Council task 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, incorporating a form of special external administration. This should be done in consultation with all relevant stakeholders.
Alinta	Alinta is concerned about the introduction of a special administrative regime arrangement that	Where a large participant fails, the ROLR scheme and standard forms of external administration may

Stakeholder	Comment	AEMC response
	would treat the electricity sector differently to other parts of the economy for the purposes of managing administration and insolvency. (Alinta, p. 2) Alinta considered that the proposal is a move towards a ‘too big to fail’ criteria for energy sector participants. It considered that this is not a competitive outcome, and portends moral hazard. (Alinta, p. 3) Alinta considered that where a large market participant has encountered financial distress as a result of poor investment decisions or exposure to large currency positions as opposed to NEM financial interdependencies or contagion, then the government should consider allowing that large participant to suffer the consequence of its choices. (Alinta, p. 3) Alinta submitted that it would be difficult to see, in the event of financial distress with unknown implications, how a SIMP’s expectations of financial assistance or market intervention would not be front and centre in the minds of a committee of public officials. (Alinta, p. 3)	not be effective to maintain financial stability in the NEM and public confidence and minimise disruptions to customers. As set out in further detail in Chapter 7, in this situation there is an argument for introducing alternative stability arrangements. Precedents for establishing specific forms of external administration are set out in Section 7.2.1 of the final report. The Commission agrees that the implementation of any stability arrangements needs to be carefully considered to avoid any perceptions that large participants are “too big to fail”. These should not foster any perceived expectation that governments would intervene when financial system stability in the NEM is threatened. The focus of the stability arrangements would be to minimise disruption to consumers and maintain NEM financial stability and public confidence rather than preventing individual participants from failing. Pre-planning for a SIMP failure now would reduce the future costs of failure, maximise the chance of an orderly resolution, and reduce the likelihood and costs of government intervention. Further work should be undertaken to develop the detailed design of the alternative stability arrangements by jurisdictional energy departments, in consultation with Commonwealth, State and Territory Treasuries.
GDFSAE	GDFSAE supported the AEMC’s decision not to proceed with the special external administration or management in the event of a SIMP failure. (GDFSAE, p. 2) The report noted that in the event of a SIMP failure, the ROLR may not be effective, and external administration under Australian law cannot	

Stakeholder	Comment	AEMC response
	be relied upon to ensure continuity of supply and NEM financial stability. GDFSAE considered that this conclusion gives rise to an expectation that government would need to intervene to prevent cascading participant failure. (GDFSAE, p. 2)	
GDFSAE, Origin, AFMA	GDFSAE does not consider that the AEMC has made a sufficient case for its proposal that the COAG Energy Council establish a working group to develop detailed design of special external administration. It considered that the good track record of the NEM to date, strengthened by the proposed improvements to the framework and ROLR arrangements should provide sufficient comfort that the NEM financial resilience is robust. (GDFSAE, p. 2) Origin considered that the proposed special administration arrangements are not a reasonable response to any residual risk in the NEM. The notion that the current administration arrangements are inconsistent with the NEO to the extent that they should be completely abandoned is unproven. (Origin, p. 2) Origin also noted that the implementation of a special administration regime would require changes to existing administration and other contractual arrangements. At a minimum, this would seemingly require changes to Corporation Law and International Swap and Derivative Agreements Master Agreements. Other consequential changes impacting business corporate structures may also be required to	The Commission has analysed the current arrangements – principally the ROLR scheme and demonstrated that, in its current form, it could lead to further failures if applied in the context of a large retailer failure. Even with the amendments proposed it still may not be an adequate response to the failure of a SIMP failure. The current arrangements do not provide any structure for deciding on alternatives to the ROLR in the event of a large retailer failure. In the absence of a plan for how to manage and respond to a SIMP failure, there is likely to be pressure on the NEM's financial system stability and a potential expectation for government to intervene. The absence of a considered plan for intervention could lead to more chaotic, unplanned intervention if a crisis occurs, which may be more costly and less effective. Noting the high costs associated with the disorderly failure of an institution, the Financial System Inquiry report stated that having "more tools in the toolkit" would maximise the likelihood that a viable option would be available in any given situation to achieve an orderly resolution of a crisis. The report also highlighted that these sorts of crisis management powers would have a limited

Stakeholder	Comment	AEMC response
	promote legal certainty under the scheme. The impact of these changes would have the potential to diminish the rights of secured creditors, and prevent a generator from closing out an OTC contract in the event of default. This could serve as a disincentive to invest/participate in the electricity sector and an increase in risk premiums which would be reflected in higher lending and hedging costs for retailers. (Origin, p. 5) The AFMA considered that it is crucially important that any resolution regime preserves safeguards to protect contractual termination and netting rights and collateralisation agreements. Any powers to stay such rights or override s. 14 of the Payments System and Netting Act 1998 that may be granted by a resolution regime would be seen as highly disruptive to the efficient functioning of the market. (AFMA, p. 3)	regulatory burden in normal times. Similarly, the Commission considers that stability arrangements should be developed to provide another tool for the orderly resolution of a SIMP failure where the ROLR scheme and standard insolvency processes may not be effective to minimise disruption to consumers and maintain NEM financial stability and public confidence. The detailed design and implementation of stability arrangements would be a complex exercise. It would involve a range of stakeholders, both within and outside the electricity sector, a package of legislative changes, and the potential for significant interim funding requirements. Any potential changes to the contractual rights of third parties would need to be carefully considered in developing the design of these arrangements.
AGL	AGL considered that the case has not been made for measures such as a special administrative regime as they are complex and there is no evidence that the modified ROLR and traditional insolvency measures are insufficient in reducing the risk of contagion. These measures involve significant changes to legislation and funding provisions that extend well beyond the electricity regulatory framework. Any changes of this magnitude must be exercised with caution given the significant implications they will have on the physical and financial electricity markets. (AGL, p. 3)	

Stakeholder	Comment	AEMC response
Stanwell	Stanwell considered that such a special administration regime would cut across existing risk management principles and has the potential to undermine confidence in existing contract market arrangements. (Stanwell, p. 3)	
ESAA	The ESAA supports the use of standard administration practices to deal with a failing retail business, regardless of its size. It does not agree with the AEMC's view that administrators will not act in a way consistent with securing supply for customers. The ESAA considered that special administration is not a proportionate response to the perceived risk of a large retailer collapse, as it would impose certain material costs and inefficiencies now, out of line with the uncertain future benefits. It considered that a low likelihood that the amended ROLR creates a risk of contagion in the event a large retailer fails does not justify fundamental changes to Australia's insolvency laws altering the rights and responsibilities of lenders, owners, directors and administrators. (ESAA, pp. 2-3)	While the likelihood is uncertain, there is a risk of an administrator ceasing trade of a large, insolvent retailer because the administrator's primary objective is to obtain the best financial recovery possible for the creditors of the business. This may lead to actions that are not consistent with the NEO. Decisions may be made to cease trading and focus on realising the company's assets, even if this threatens retail services to customers, or the financial stability of the NEM. Where a large retailer is under external administration, the consequences of an administrator's decisions could have a major effect on the NEM's financial stability. Whether or not this would occur, and to what extent, would depend on a broad range of variables and the unique circumstances at the time. Irrespective of the probability of such a failure occurring, it is important to be prepared by having an appropriate response mechanism in place so that the financial stability of the NEM is preserved and customers continue to be supplied. The Commission considers that stability arrangements should be developed to provide another tool for the orderly resolution of a SIMP failure where the ROLR scheme and standard

Stakeholder	Comment	AEMC response
		insolvency processes may not be effective to minimise disruption to consumers and maintain NEM financial system stability and public confidence. As noted above, there are precedents for establishing specific forms of external administration for particular industries or important State interests, and to deal with situations that are not able to be satisfactorily managed by traditional forms of external administration. In relation to the development of stability arrangements, the Commission agrees with the statement in the Financial System Inquiry report that: "strengthening necessary areas of the financial system now at a measured pace, rather than later, will cost less than actions to reinforce the system at a time when it is weak or where change must occur quickly."
ERAA	The ERAA considered that the report does not provide any substantive details or analysis as to the design of these stability arrangements, for it to comment on. It does not support new arrangements being introduced if the costs of design and implementation far outweigh any perceived benefit that will be received. (ERAA, p. 2)	Chapter 7 sets out a framework for how the stability arrangements could be applied. However, given the breadth of issues raised when considering potential stability arrangements, including insolvency processes and the potential for significant funding requirements, the Commission has not made detailed recommendations about the design of suitable stability arrangements. It is recommended that the COAG Energy Council commission energy departments, in consultation with Commonwealth and State and Territory Treasuries, to form a working group to further develop the detailed design of these

Stakeholder	Comment	AEMC response
		arrangements. A draft scope of work is provided in Appendix E of the final report.
EA	EA does not support the recommendation that the government review Australia's corporate insolvency regime with a view to creating special administration arrangements for SIMPs. (EA, p. 2) It considered that the rationale proposed for special administration is weak, because: 1. Inability to conclude there is no risk to financial stability in any future circumstance. EA considered that this is an unreasonable test. There will always be some residual risk and seeking to achieve zero residual risk would impose excessive costs on consumers and tax payers; and 2. An administrator cannot be relied on to act consistently with the NEO. The administrator would face the same commercial incentives as all retailers to deliver electricity services to customers efficiently and reliably. (EA, p. 2) EA submitted that the stated intention of the stability arrangements is to reduce the rights of creditors and make them subordinate to the needs of customers and market stability. This would increase funding costs for retailers, and potentially their owners. It considered that it would be preferable to explore reforms to NEM rules that would facilitate ordinary administration without	Whilst the likelihood of SIMP failure occurring is uncertain, it could have severe flow-on effects in the NEM. The responses above outline why the Commission is of the view that stability arrangements be developed. EA's concerns regarding the impact that the form of stability arrangements might have on retailers and their shareholders could be considered as part of the detailed implementation, and could draw on the experiences of other markets in which similar reforms have been introduced.

Stakeholder	Comment	AEMC response
	compromising prudential quality. (EA, p. 2)	
Proposed recommendations for improving existing arrangements		
Changes to the ROLR scheme		
AEMO	AEMO considered that the proposed incremental improvements to ROLR are likely to extend the range of scenarios under which ROLR would be effective. (AEMO, p. 1)	The Commission agrees and considerations in relation to the ROLR scheme are set out in Chapter 8 of the final report. Changes to the NERL and NER are required to implement these recommendations. A paper setting out the required changes in detail is published with this final report to assist the implementation process.
EA	EA considered that the case that the current arrangements are not adequate for responding to a large participant failure has not been made and the finding is not consistent with the analysis of the risks. (EA, p. 5) It also considered that while a case has been made that ROLR is a flawed intervention that should be reformed and the automatic suspension of a market participant who is placed in external administration should be reviewed, it is not apparent that fundamental governance changes are necessary. (EA, p. 5)	The Commission disagrees and considers that the current arrangements to respond to events that may threaten NEM financial system stability are not adequate in the situation of a large participant failure. See above for the rationale for why the current arrangements are inadequate and the Commission's position on what is required for the failure of a large retailer.
Delayed designation of ROLRs		
AEMO	AEMO considered that delaying the designation of ROLRs is workable and likely to improve the	The Commission agrees and considerations and a final recommendation regarding delayed

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	operation of ROLR. It also considered that the changes would result in some redistribution of risk in the market. (AEMO, p. 2)	designation of ROLRs are set out in Section 8.4 of the final report. The detailed changes required to the NERL to implement this recommendation have been published in a paper with this final report. The Commission also agrees that the AER should maintain its current market driven approach to allocating ROLRs.
AER	The AER considered that changes to the ROLR regime such as delaying the designation of ROLRs will make the ROLR regime more effective in managing retailer failures of any size, and should be addressed as a matter of priority. (AER, p. 1) If this recommendation is adopted, the AER will consider measures to minimise any communication and event management issues that may arise for customers and market participants. The current ROLR notice provisions in the Retail Law may need to be reviewed, to enable the AER to issue a ROLR notice without specifying designated ROLRs. (AER, p. 4)	
Alinta and EA	Alinta considered that improving the ability of the AER to delay designation to assess the potential for multiple ROLRs is a sensible method for diffusing the risks that arise from large scale customer transfers (Alinta, p. 2). This may provide time for additional ROLRs to be ‘encouraged’ to nominate (EA, p. 9).	
Origin and AGL	Delay in ROLR designation will allow for additional time for arrangements to be made to manage the administrative and financial requirements from integrating a large number of customers, while giving the AER sufficient time to more prudently apportion customers (Origin, p. 2; and AGL, p. 2). Recommendations to promote the timely recovery	

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	of the ROLR's reasonable costs are likely to help minimise any risks associated with a delay in appointing the ROLR. (Origin, p. 2) The AER should continue to maintain a market driven allocation through voluntary pre-registration of interest as it currently exists (AGL, p. 2). This should include provision for the pre-registration of both firm and non-firm ROLRs. (Origin, p. 2)	
Delaying credit support requirements of AEMO and DNSPs		
AEMO	AEMO considered that the changes to NEM credit support requirements following ROLR are workable and likely to improve the operation of ROLR. (AEMO, p. 2)	The Commission agrees and recommended drafting changes to the NER are set out in a paper which has been published with this final report.
AER	The AER noted that consideration needs to be given to the combined effect of delayed credit support and distributor payment determinations. There is potential for the delaying of additional credit support requirements that the ROLR may be required to provide to DNSPs to occur at the same time as the AER makes an interim cost recovery determination, which would be recouped from DNSPs through distributor payment determinations. (AER, p.5)	The Commission does not consider that the interaction of these two mechanisms would materially increases risk for DNSPs. DNSPs are not exposed through a delay in credit support from a ROLR unless the ROLR itself fails, as DNSPs are only able to draw on the credit support provided where the retailer has an amount due and that amount remains outstanding. The Commission also notes that delaying credit support requirements for ROLRs are also likely to reduce the risks of the ROLR failing, which reduces cost recovery risks for DNSPs over the longer term.
Alinta, GDFSAE, Origin, AGL, Stanwell, ERAA and EA	Several submissions expressed support for delaying credit support requirements for both AEMO and DNSPs (Stanwell, p. 1; Alinta, p. 2; EA, pp. 4-5; and ERAA, p. 1). Submissions noted that	The Commission agrees and recommended drafting changes to the NER are set out in a paper which has been published with this final report.

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	the proposal will: • reduce the immediate financial impact on the ROLR (GDFSAE, p. 3; and AGL, p. 2); • distribute the cost burden more evenly across NEM entities (GDFSAE, p. 3); and • provide more time for the ROLR to procure credit support (AGL, p. 2; and Origin, p. 3).	
Origin	Origin considered that given the magnitude of the credit support that could be required in some instances, there may also be a role for government. Government providing credit support following a ROLR event should be viewed in the context of ensuring the continuity of supply by helping to mitigate the risk to a viable business that has incurred the regulatory requirement to accept customers of a failed competitor. (Origin, p. 3)	The Commission's recommended amendments to the ROLR arrangements have been designed to promote a more efficient sharing of risk. They should allow a financial shock to be absorbed more readily, reducing the potential need for government intervention and/or funding. The Commission therefore has not recommended further amendments to allow the Commonwealth Government to post credit support on behalf of a ROLR (see Section 8.2 of the final report). However, the provision of government intervention and/or funding could form part of alternative arrangements to be applied instead of the ROLR scheme for SIMPs. This is discussed in Chapter 7.
EA	EA considered that regulated monopoly network businesses are well placed to manage this credit risk for the extended period post ROLR transfer. This is because they have a large regulated asset base and well established processes to recover any ROLR costs from all consumers in their service area. Delaying credit support requirements should	The Commission recommends that the delay in the provision of DNSP credit support by the ROLR be limited to five weeks, consistent with the recommended revisions the AEMO credit support requirements. The Commission considers that this delay provides an appropriate balance between reducing the immediate financial obligations on

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	be extended to 3-6 months to reflect the intensity of activities that need to be implemented following a ROLR event. A retailer will take some time to source and gain approval for additional credit support and this should not come at the expense of customer service. (EA, pp. 4-5) Delaying payment for all DNSP costs in a ROLR event would reduce the risk of financial contagion and represents a more efficient allocation of risk. A delay of 12 weeks would better match the current billing cycle for most mass market customers. The ROLR should not be required to post prudentials to DNSPs or pay network costs in relation to ROLR customers before they bill those customers. Network regulatory arrangements could ensure cost recovery, and the customer cannot easily change network service provider to frustrate debt collection. (EA, p. 8)	ROLRs and sharing these risks across the broader market.
Energy Networks Association (ENA) and Networks NSW	ENA submitted that the proposed changes involve shifting commercial risks from retailers to DNSPs. This is inconsistent with the AEMC's strategic priority to develop market arrangements that encourage efficient investment and flexibility. Efficient investment does not occur when DNSPs are required to take on financial risks incurred by retailers. Where changes in risk allocation are contemplated appropriate regulations should be included to protect the risk profile of all DNSPs in the NEM. (ENA, p. 1) ENA and Networks NSW do not consider that the report addressed the analysis of the magnitude of	The Commission has updated the modelling scenarios presented in the second interim report, in light of the concerns raised by network businesses. These updates are set out in Section 3.4.3 of the final report. Section 8.7.3 of the final report sets out the Commission's considerations and conclusions in relation to the recommended delay in DNSP credit support requirements. The proposed amendments represent an efficient sharing of risk that is likely to promote system stability at the time of a retailer failure. The Commission has recommended a separate framework to address the impact of a

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	the risks that could be transferred to DNSPs and the flow on implications of this risk that was presented in DNSP submissions to the options paper. If such analysis had been considered for the second interim report, ENA and Networks NSW consider it unlikely that the AEMC would now make a five week deferral recommendation (ENA, p. 2; and Networks NSW, p. 3). Networks NSW also submitted that: • The scenarios upon which the Frontier Economics Report quantifies effects do not reflect the reality that there are three large retailers that dominate the Australian energy market. This concentrated market share is unlikely to change in the foreseeable future and as a result, DNSPs are heavily exposed to these three retailers (Networks NSW, p. 2); • The policy makers did not intend that large retailers would use a combination of corporate credit rating (and dynamic risk scores for un-rated financially responsible market participants within a group entity, as this would result in the doubling of credit allowance and inadequate credit support for a DNSP. These provisions should be amended (Networks NSW, p. 3); and • The most effective way of mitigating the potential credit and cash flow impacts from a	large retailer failure in Chapters 6 and 7, as it considers the ROLR scheme, even with the proposed amendments, may not be effective to deal with the impacts of such a failure. Section 8.7.3 also discusses the proposed rule change which has been recently received by the Commission on the adequacy of the current DNSP credit support arrangements.[366] The Commission considers that the issues raised by DNSPs would be more appropriately addressed through this rule change process. This will allow these issues to be addressed in a more comprehensive and timely manner. The Commission notes that any concerns regarding the enforcement of the existing credit support arrangements under the NER should be raised with the AER.

366 AGL's 'Retailer-Distributor Credit Support Requirements' rule change request can be found on the AEMC website at www.aemc.gov.au.

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	retailer failure is through having credit support arrangements that can be enforced. The AEMC should consider the effectiveness of current enforcement options, in particular whether the conduct provisions and the ROLR provisions are properly integrated (Networks NSW, p. 3).	
Revised ROLR cost recovery arrangements		
AER	The proposed changes to the ROLR scheme have the potential to increase the cost to customers of smaller ROLR events, where there is no risk to the financial resilience of the NEM. For this reason, the AER considered that any changes to the cost recovery principles in s. 166(7) of the Retail Law should distinguish between smaller and larger ROLR events. The current cost recovery principles in s. 166(7) arrangements are an appropriate balance for smaller retailer failures, and should continue to apply to smaller ROLR events. Additional principles should be incorporated in the Retail Law to provide increased certainty of cost recovery of reasonable costs for designated ROLRs in larger retailer failures. (AER, p. 4) The AER noted the proposal for it to consider making an interim determination on ROLR cost recovery within a short period of an application where ROLR costs are substantial, and the suggestion that a "short period" might consist of two weeks. As it would not be feasible to conduct any meaningful analysis or consultation within a two week period, it would be preferable to develop a formulaic approach to determining what a ROLR	As discussed in Section 8.3.3 of the final report, the Commission recommends that the ROLR should not be required to bear a proportion of the ROLR costs. It is important for ROLRs to have confidence that reasonable costs will be recovered to assist them to seek finance on the basis of future cash flows. This may encourage more retailers to become ROLRs by reducing the risks on the ROLR. However, retailers would still have the ability to offer to bear some costs. A retailer could offer competitive terms to become a ROLR where it saw benefit in being able to acquire the customers of the failed retailer. While small retailer failures may have a limited impact on the resilience on the NEM, these proposed changes would allow the ROLR scheme to work more effectively in a broader range of circumstances. As discussed in Chapters 6 and 7, the Commission considers that the ROLR scheme, even with the adoption of the proposed changes, may not be effective in responding to large participant failure so has recommended an alternative framework

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	can recover on an interim basis, or alternatively to extend the period that the AER has to consider an application. (AER, p. 4)	should apply in this situation. The Commission acknowledges the AER's concerns about the challenges of making interim cost recovery determinations in a short amount of time. The Commission recommends the AER should be able to undertake a fast track cost recovery process for ROLR costs which are clearly identifiable and quantifiable. Whether this fast track process is applied would be at the AER's discretion. It is proposed there would also be no defined timeframe set out in the NERL for the process to be completed by to allow the AER sufficient time to make its determination. However, consultation could be waived by the AER to accelerate this process.
Alinta, GDFSAE, Origin, Stanwell and AGL	Several submissions supported the proposed clarification of cost recovery arrangements which provide greater certainty for a ROLR (AGL, pp. 1-2). Submissions noted that clarification would: • ensure the designated ROLR can quickly recover costs that are allowed within short timeframes (Alinta, p. 2; GDFSAE, p. 3; and Origin, p. 3); • reduce the risk that the sudden costs imposed on the ROLR might cause its failure (GDFSAE, p. 3); and • increase the number of ROLRs which in turn	The Commission has recommended changes to the ROLR cost recover arrangements to improve the certainty of cost recovery for ROLRs. This may encourage more retailers to become ROLRs which would decrease the risk of cascading retailer failure in the NEM by reducing the cash flow and additional credit support challenges faced by a ROLR. These changes are discussed in detail in Section 8.3 of the final report. In summary, the Commission recommend that the NERL should be amended by: - revising the principles for cost recovery to reduce uncertainty in relation to cost recovery; - providing further detail in relation to the types of costs the ROLR is able to recover;

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	should decrease the impact of a ROLR event. (Stanwell, p. 1) There would be merit in considering whether the AER can provide the ROLR with recovery of costs in a shorter timeframe in order to minimise the risk of financial contagion in the short term. (AGL, pp. 1-2)	- specifying the time period the ROLR has to submit a cost recovery application and providing the AER discretion to grant an extension to this time period in certain circumstances; and - enabling the AER to undertake a fast track cost recovery process for ROLR costs which are clearly identifiable and quantifiable.
Improvement of Customer Information and Systems		
AEMO	AEMO considered that measures for AEMO and the AER to explore opportunities for more accurate customer information are likely to improve the operation of ROLR. (AEMO, p. 2)	The Commission supports continued work by AEMO and AER to improve customer information and systems. The Commission has recommended that the AER be required to notify very large customers on an annual basis of the specific ROLR arrangements applicable to them, using customer information provided by retailers, which would include NMI information. Information on very large customer NMIs would be provided to AEMO by the AER to assist the transfer process for very large customers following a ROLR event and may also help the ROLR understanding the inherited load. Details of this recommendation are set out in Section 8.5 of the final report.
AER	The AER supported any measures to ensure that standardised, up-to-date customer data is available, and would support an extension of the current gas customer information update arrangements to the NEM, to facilitate the smooth transfer of customers. (AER, p. 5)	
Alinta, GDFSAE and AGL	A number of submissions supported the proposal to improve information held by the AER and AEMO (GDFSAE, p. 3). Submissions noted that: • a key risk to ROLRs is the inability to hedge an unknown group of customers that may be transferred during a ROLR event (Alinta, p.2); and	

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	• any such improvements should not incur material costs and administrative burden on market participants (AGL, p. 2).	
Treatment of very large customers under the ROLR scheme		
AEMO	AEMO considered that transferring risk onto very large customers following the failure of their retailer would only be appropriate if it was manageable for those customers and substantially reduced the risk of systemic failure to the market as a whole. (AEMO, p. 2) It is concerned that following a ROLR event its resources are likely to be focussed on implementing the ROLR and managing the impact on prudentials. Because of this, it may not be well placed to engage with a large number of end-use consumers who have notified AEMO of their back-up retailer during the one week grace period. (AEMO, p. 2)	The Commission agrees that changes to the ROLR scheme need to be manageable for AEMO and the AER. It has recommended enhancements to the way that very large customers are treated under the ROLR scheme to encourage these customers to organise their own alternative retailer before a ROLR event occurs. These recommendations are set out in detail in Section 8.5 of the final report. They include a requirement for retailers to provide customer information, including contact and NMI details, to the AER on an annual basis. The AER would be required to share the NMI information with AEMO to assist in managing the very large customer transfers following a ROLR event.
AER	The AER submitted that consideration should be given to whether these customers should be required to notify AEMO in writing of their back-up retailer prior to any ROLR event. Both the AER and AEMO have a number of responsibilities to manage immediately following a ROLR event, and would not be well placed at that time to initiate communications with individual customers. (AER, p. 5)	
Alinta	Alinta submitted that encouraging large customers	The Commission agrees and has recommended

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	to implement their own ROLR arrangements will minimise financial obligations on the designated ROLR and should encourage participation by a larger number of retailers as ROLRs. (Alinta, p. 2)	further measures to encourage very large customers to organise their own alternative retailer prior to a ROLR event, as set out in Section 8.5.
GDFSAE	GDFSAE was concerned that the proposal to exclude large customers from ROLR arrangements could undermine competition at the high-usage end of the market and entrench the position of the first tier retailers. Those retailers able to offer ROLR insurance may use the ROLR discussion as an opportunity to entice the customer away from the existing retailer. (GDFSAE, p. 3)	The Commission disagrees and considers that its very large customer ROLR recommendations, as detailed in Section 8.5 of the final report, may in fact serve to encourage competition between retailers: - Very large customers would receive targeted communications, from the AER and in their retail contract, explaining the ROLR arrangements applicable to them. This may encourage them to mitigate risks by organising their own alternative retailer. - Very large customers would have a seven-day grace period to organise an alternative retailer following a ROLR event. Where retailers agree to take liability from the ROLR transfer date for these customers, transfers would be accelerated by AEMO. This may encourage competition as it provides incentives for retailers to seek out and compete for very large customers during the grace period.
Origin	Origin considered that this provision is not needed, and that there are a number of issues that could render the proposed arrangements impractical. (Origin, p. 3) There are likely to be numerous critical	The Commission recognises that disconnecting very large customers who have not organised their own alternative retailer within the seven day grace period would be impractical, would increase the risk of a sensitive load being inadvertently disconnected, and may make it difficult to recover

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	infrastructure and service customers captured by the proposal across both the private and public sectors. Disconnecting these customers is simply not an option. This is not on the basis of the commercial cost to the customer from loss of production, but due to the direct, economic, and health and safety cost implications the loss of supply to these customers would cause. Origin questioned how the exemption of 'sensitive loads' would be determined. It also noted that the potential that the list of exempted entities could be greater than anticipated. This calls into question the likely effectiveness of the proposal where a significant proportion of customers are excluded from the option due to their strategic significance. (Origin, pp. 3-4) Additionally, the administrative cost of the proposal is likely to be significant with a customer having to tender for both a primary energy provider and a back-up retailer. The costs for retailers are likely to be significant particularly as back-up contracts would only be activated in the highly unlikely event of the failure of a systemically important retailer. (Origin, p. 4) Origin considered that if the intent is to lower the burden on the ROLR, the role of the AER and the proposed delay in the appointment of the ROLR would be instrumental. The AER in appointing the ROLR would be best placed to determine the optimal distribution of the failed retailer's customers; this could be across a number of ROLRs if required. This would help to minimise the	liabilities which are accrued by very large customers during the grace period. Assigning a very large customer without an alternative retailer to a designated ROLR after the grace period is the only practical option for recouping grace period liabilities because only retailers can bill customers directly. Therefore the Commission recommends that, if AEMO is not notified of an agreement between a very large customer and an alternative retailer before a ROLR event or during the seven day grace period, the very large customer would be transferred to the designated ROLR from the ROLR transfer date. Section 8.5.3 of the final report sets out the details of the Commission's considerations and recommendations with respect to the treatment of very large customers under the ROLR scheme. The Commission has also recommended further measures to increase awareness and create incentives for very large customers to organise their own alternative retailer. The Commission has maintained its proposed threshold of 10GWh for very large customers as it continues to consider that customers of this size should have sufficient expertise to organise their own alternative retailer. Very large customers and retailers which do not see the benefit in negotiating an alternative contract ahead of a ROLR event would be given the opportunity and incentives to do so during the seven day grace period. The

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	burden on any one particular ROLR brought on for example by having to take on too many large customers. Origin considered that this is a more reasonable approach than putting in place a requirement to explicitly exclude very large customers from the ROLR regime. It therefore recommended that the current provisions for large customers be maintained, whereby they are given the option of opting out of the ROLR arrangements if they choose to do so. (Origin, p. 4)	Commission agrees that the delayed designation of ROLRs, as recommended in Section 8.4 of the final report, would assist in reducing the financial challenges faced by ROLRs.
AGL	AGL considered there is some merit in excluding large customers from the ROLR scheme, based on the following conditions: 1. The large customer is not required to enter into an agreement with an alternative ROLR prior to its existing retailer defaulting. This is because it is costly and impractical to expect customers, even large ones, to negotiate a separate agreement with another retailer when there is a low probability of their current retailer failing; and 2. The consumption threshold for exclusion from the ROLR scheme should be increased from 10 GWh/year to 30 GWh/year. This is because customers with significant levels of consumption are more likely to be sophisticated customers and therefore more capable of dealing with the administrative issues associated with being excluded from the ROLR regime. (AGL, p. 2) In addition, it needs to be considered whether	

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	customers whose business operations are important to the economy should be faced with disconnection in the event that they are unable to procure another retailer within seven days of their retailer defaulting. There are also other practical issues that need to be considered, such as in the event that a customer is unable to procure an alternate retailer within the seven day timeframe, who is responsible for its usage while it was connected and who pays for its disconnection. (AGL, p. 2)	
ENA and Networks NSW	ENA considered that the obligation on a DNSP to disconnect these customers at short notice is onerous and impractical because of the processes that need to be followed and the resources necessary for the disconnection. The ENA is concerned as to which party is required to advise large customers of the consequences of not having a back-up retailer and ensure customers have arranged for a back-up retailer to be engaged should the need arise. It is supportive of sharing the risks across the market participants, however it may be false comfort to expect that a large customer would assist or facilitate being disconnected through no fault of their own. The ENA's preferred option is that if the customer has not nominated a specific ROLR, then the customer should be allocated to the AER appointed ROLR in line with current arrangements. (ENA, p. 3) Networks NSW strongly urged the AEMC to reconsider whether this proposal is well conceived and, if it proceeds, ensure that it does not involve	

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	any transfer of risk to DNSPs if they are required to disconnect a major load. Networks NSW recommended that a more preferable approach would be for the NER to provide for the automatic transfer to the designated jurisdictional ROLR after expiry of the one week period. (Networks NSW, p. 3)	
Stanwell	Stanwell broadly supported the proposal to have very large customers nominate a ROLR rather than relying on the automatic processes. However, Stanwell would like to see the following refinements: • a higher consumption threshold (that is, less customers) than proposed by the AEMC; • encouraging or requiring such customers to nominate a ROLR in advance; and • requiring the nominated ROLR to not be the default/designated ROLR under the automatic scheme. (Stanwell, p. 2) Stanwell considered that the threat of disconnection should not be seen as a desirable motivator. Both the market and the consumers should be attempting to ensure that customers remain connected to minimise the impact of a ROLR event. Forcing the disconnection of customers who are willing and able to pay for their consumption is likely to extend the risk of financial contagion beyond the scope of the electricity	

Stakeholder	Comment	AEMC response
	market. (Stanwell, p. 1)	
ERAA	The ERAA does not support the exclusion of customers above 10 GWh from the ROLR customers. It considered that this will create unnecessary administrative burden and costs to both customers and retailers for what is deemed to be of limited benefit. The negotiation process for large customer's energy contracts is a complex and time consuming process and generally involves several months of protracted negotiations. Adding a further requirement into the procurement process for these customers to procure a back-up retailer, in addition to a primary retailer, will introduce significant complexity to the negotiation process. (ERAA, pp. 1-2) As secondary retailers will only be activated in the highly unlikely event of the failure of the primary retailer, secondary retailer contract terms will be highly conditional. The ERAA contended that this would simply add extensive complexity in negotiating commercial terms as it is unlikely that these terms may be acceptable to large customers. It was also unclear as to the potential impact on competition if retailers elect not to participate in this complex tender process. (ERAA, pp. 1-2)	As noted above, the Commission recognises that disconnecting very large customers who have not organised their own alternative retailer within the seven day grace period would be impractical and has made recommendations that seek to increase incentives and awareness for very large customers to voluntarily find their own alternative retailer. As a result, all very large customers, including sensitive loads, would be transferred to the ROLR if they have not found their own alternative retailer following the seven day grace period. Also as noted above, very large customers and retailers which do not see the benefit in negotiating an alternative contract ahead of a ROLR event would be given the opportunity and incentives to do so during the seven day grace period. Section 8.5 of the final report sets out the Commissions considerations and recommendations on ROLR very large customers. The Commission recommends a high consumption threshold that involves a relatively small number of customers in total, but still offers significant potential benefits to the designated ROLR in terms of a possible reduction in their financial obligations. Data from AEMO suggest there are fewer than 1,000 connection points with annual consumption of 10GWh or more, and that these connection points account for 15 per cent to 20 per cent of total NEM demand. Reducing the obligation on designated ROLRs to supply very large customers could reduce their financial obligations
EA	EA considered that consumption of 10 GWh per year at a single site is a reasonable initial threshold for determining those customers who should be excluded from the ROLR scheme. Single sites with electricity bills over $1 million dollars are well placed to consider and manage their own supply	

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	chain risks. (EA, p. 8) EA is concerned that very large sensitive electricity users may not actively identify and manage all contingencies that may impact their supply. Many of these consumers are government owned, or implicitly backed by governments for the provision of essential services. They should be best placed to manage their own arrangements. The complexity involved with identifying and excluding these loads may outweigh the benefit. Over time the threshold for exclusion from ROLR could be progressively reduced as arrangements are fully developed and standardised for very large customers. (EA, pp. 8-9)	substantially. The Commission notes that this threshold could be further considered once these arrangements have been in place for some time and have been applied in practice.
Participant suspension under the NER		
AEMO	AEMO submitted that it would be beneficial for the NER to be clear as to the power it has to allow a generator to continue trading while insolvent and the circumstances in which this can be considered. It noted that there are risks in allowing a generator to trade while insolvent, especially in regard to the enforcement of the NER and conditions of registration. Therefore, it considered that any arrangement should provide for a broad range of conditions to be applied for it to make such a determination. (AEMO, pp. 2-3)	The Commission agrees that the NER should be clarified to allow AEMO to not suspend a market participant which is under external administration as it may help to maintain NEM financial system stability. It is also agrees that AEMO needs to have discretion to consider the factors relevant to each participant- this discretion has been provided for in draft changes to the NER.
AER	The AER supported changes that clarify the market suspension provisions in the NER, including changes that would allow the potential for the generation arm of a business to continue to	The Commission agrees AEMO should have the ability to impose conditions on a participant under external administration where AEMO has not suspended one or more of the participant's

Stakeholder	Comment	AEMC response
	participate in the market when the retail arm is subject to ROLR. The AER considered that, given the difficulties with taking enforcement action against entities that are in external administration, a participant operating in the market under external administration should subject to conditions such as requirements to report regularly to market institutions on matters such as resourcing, technical capability and the expected duration of external administration. The framework should allow for the participant to be suspended for a broader range of reasons than those set out in the payment default procedure in rule 3.15.21 of the NER, such as significant non-compliance. This would ensure that the participant in external administration remains incentivised to comply with the market rules.(AER, pp. 5-6) If the NER is clarified to allow for a retail entity that is under external administration to continue to participate in the market in certain circumstances, the interaction between the NER, the definition of "ROLR event" in the NERL, and the AER's discretion to issue a ROLR notice will need to be considered. The framework should not require the AER to decide whether or not to issue a ROLR notice if a decision has already been taken to allow a retail entity under external administration to continue to participate in the NEM. (AER, pp. 5-6)	registrations or a subset of the activities under a particular registration. However, the Commission has not proposed AEMO be required to consider whether a participant under external administration will comply with its obligations under the NER, as all registered participants are required to comply with the NER. This would not change where a participant under external administration is allowed to continue operating. The Commission considers that AEMO's ability to impose conditions on the participant would minimise the risks of allowing the participant to continue operating. For instance, these conditions could include regular reporting to market institutions. As set out in Chapter 8, the Commission agrees that the NERL should be clarified to require the AER to issue a ROLR notice, where AEMO has suspended a retailer from the NEM. This would remove the existing uncertainty that may occur. Proposed changes to the NERL have been published with this report to provide for this.
Origin, Stanwell, ERAA, AGL, Alinta and GDFSAE	Origin supported amending the NER to allow the generation assets of a failed retailer to continue operating in the NEM. (Origin, p. 2)	As set out above and in Chapter 9, the Commission has recommended changes to the NER to clarify AEMO's ability to not suspend a participant under external administration.

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	While not advocating blanket application of such a provision, Stanwell agreed that there are likely to be benefits in some circumstances, such as the continued operation of generation assets owned by a suspended retailer. (Stanwell, p. 2) The ERAA supported in principle, amending the NER to enable generation assets to continue to be operated even when a retailer is suspended. The sudden withdrawal of generation capacity in the market, particularly on a high demand day, may cause widespread business and community impacts. (ERAA, p. 2) AGL considered that there is merit in the proposal to allow the possibility of a generator to continue operating even though it may be in external administration. However, it identified several factors that need to be considered in further developing this proposal including: the duration of operation while under administration; the materiality of the generator for NEM security of supply; and whether there is sufficient personnel and resources to continue operation. (AGL, p. 2) Alinta considered that clarification of market suspension rules to allow a participant to continue generating at the time of financial distress is a practical and pragmatic proposal that will benefit both the entity encountering financial distress and the market at the time of the said entities distress. (Alinta, p. 2) GDFSAE considered that allowing a participant	

Stakeholder	Comment	AEMC response
	that is under external administration to continue to trade in the market would allow the opportunity for the participant to trade its way through the failure event, prevent possible security concerns from withdrawing generation supply, and allow any corporate rescue initiatives to be explored. It agreed with the conditions proposed which would apply to a participant under external administration being allowed to remain operating in the market. (GDFSAE, p. 3)	
EA	EA submitted that it is not evident that any participant should be automatically prohibited from trading while in administration. If the administrator guarantees to meet all their trading obligations and provides appropriate prudential cover, then an orderly administration is likely to be less disruptive than triggering ROLR. (EA, p. 9) EA considered that any participant allowed to operate in the market while under external administration should be required to meet all of the obligations that apply to any other participant. In particular the administrator would need to guarantee to meet all future debts and other obligations that result. (EA, p. 9)	The Commission agrees that any participant who is allowed to continue operating while under external administration would continue to have obligations to meet the requirements that apply to all registered participants.
Risk management, transparency and G20 measures		
Alinta, GDFSAE, AGL, ESAA and AFMA	Several submissions expressed support for the recommendations against introducing additional risk management and transparency obligations or applying the G20 measures for OTC reforms to	The Commission agrees that currently the case is not established for mandating additional risk management measures or the G20 OTC derivatives reforms for electricity participants in the

Stakeholder	Comment	AEMC response
	electricity derivatives. (GDFSAE, p. 2) Submissions noted that such measures would: • potentially be counterproductive (Alinta, p. 2; and AGL, p. 1); • not be worth the significant additional cost and regulatory burden (Alinta, p. 2; and AGL, p. 1); and • not resolve the key issues confronting the NEM. (Alinta, p. 2) A number of submissions expressed support specifically for the conclusion that the case for implementing the G20 measures in the electricity sector had not been established. (ESAA, p. 1; and AFMA, p. 3)	NEM. Its reasoning is set out in Chapters 10 and 11 of the final report. The Commission's assessment has been only made in relation to the application of these measures to electricity participants in the NEM, consistent with COAG Energy Council's request for advice and taking into account the NEO. The Commission notes there may be broader policy reasons for implementing the G20 OTC derivatives reforms and that the Commonwealth Treasurer is ultimately responsible for determining the implementation of these reforms.
EA	EA submitted that the AEMC should: • recommend the existing exemption for electricity derivatives be permanent; and • consider making the observation that government should extend existing exemptions for electricity derivatives to gas derivatives (EA, p. 10).	

C Modelling assumptions potential effects of a large retailer failure

The Commission has conducted modelling to better understand the implications and materiality of the failure of a large retailer for market participants. The Commission appreciates AEMO's and Frontier Economics' assistance in this modelling exercise. The modelling results are presented in section 3.4 and are also included in the Frontier Economics report published with the second interim report.[367]

The modelling estimated both the AEMO and DNSP credit support implications and the wholesale energy purchase cost implications on ROLR(s) under a number of scenarios reflecting different market shares of both the failing retailer and the designated ROLRs. These implications were estimated 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 original 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%, with each of the ROLRs having a 30 per cent market share following the ROLR event.

- 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 original market shares of 15% each. All other retailers are assumed to be smaller. This would represent a notional doubling in the size of the two designated ROLRs' customer loads, with each ROLR having a 30 per cent market share following the ROLR event.

- 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 an original 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, with the ROLR having a 45 per cent market share following the ROLR event.

Under all scenarios, the Standard & Poor's credit rating of the two designated ROLRs was assumed to be BBB-, this being the threshold for investment grade debt. By way of

367 Frontier Economics, *Policy responses to mitigate the risk of financial contagion in the NEM*, July 2014. Please note that Frontier's report does not include the additional analysis undertaken since the publication of the second interim report in relation to the impact of a 65 day network charges liability on DNSP credit support. This additional analysis is outlined in section 3.4 and the modelling assumptions are discussed below.

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).

C.1 Modelling assumptions

C.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.

C.1.2 Market Parameters

The assumptions for normal and high price conditions are:

- Normal parameters are based on current values. 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.

C.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.

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

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 retailer’s credit allowance with respect to each DNSP is calculated as a percentage of the relevant DNSP’s maximum credit allowance, with that percentage based on the retailer’s credit rating. In general, the credit allowance percentage for a retailer can be calculated as the ratio between the probability of default for the retailer based on its own assigned rating and the probability of default for A- rated company. This means that a retailer with a Standard & Poor's credit rating of A- or higher is entitled to a credit allowance percentage of 100% of the DNSP's maximum credit allowance. Such a retailer's credit allowance would be equal to the DNSP's maximum credit allowance. Conversely, a retailer with a Standard & Poor's BBB- credit rating (bare investment-grade) would receive a credit allowance of only 22% of the DNSP's maximum credit allowance. A DNSP's maximum credit allowance is equal to 25% of its total annual retailer charges.

A retailer's network charges liability with respect to a given DNSP is the DNSP's estimate of the retailer's average billed and unbilled network charges liability across the retailer's customers served by that DNSP. Assuming all of a retailer's customers are the same size and the DNSP reads the meters of (and invoices retailers for) the same proportion of the retailer's customers each day, the retailer's average billed and unbilled network charges liability is derived from the following number of days' network charges:

final customer consumption period /2

+ retail billing period /2

+ invoice preparation and payment lag.

For example, consider:

- A retailer serving only residential customers whose meters are read by the DNSP every 90 days. Assume that the DNSP bills the retailer every 30 days, in respect of the customers' meters the DNSP read over the preceding 30 days. Finally, assume that the retailer has 30 days to pay the DNSP's invoice. Under these conditions, the retailer's network charges liability would be based on 90 days' estimated network charges:

  final customer consumption period = 90; therefore final customer consumption period /2 = 45 days

  retail billing period = 30; therefore retail billing period /2 = 15 days

  invoice preparation and payment lag = 30 days

  Total = 90 days

- A retailer serving a mix of customers, of whom 63% are read quarterly and 37% monthly. Assume that, on average, the DNSP reads the retailer's customers' meters every 68 days. Further assume that because some retailers are billed monthly and some weekly, on average, the DNSP bills the retailer every 22 days. Finally, assume that the retailer has, on average, 20 days to pay the DNSP's invoice. Under these conditions, the retailer's NCL would be based on 65 days' estimated network charges:

final customer consumption period = 68; therefore final customer consumption period/2 = 34 days

retail billing period = 22; therefore retail billing period/2 = 11 days

invoice preparation and payment lag = 20 days

Total = 65 days

Frontier has modelled retailers’ DNSP credit support obligations under the three scenarios above, using network charges liabilities based on both 65 and 90 days’ network charges outstanding for the final report. The second interim report only included modelling in relation to 90 days' network charges outstanding.

In order to conduct this analysis, it is necessary to take account of the annual revenue and relative sizes of DNSPs across the NEM. A retailer with a certain market share in the NEM is assumed to account for that share of each DNSP's revenues. Between the Commission's second interim and final reports, the DNSP revenue figures have been updated to reflect the latest information from the AER. These latest figures are set out in Table C.1. As a result of these figures being updated, the modelled DNSP credit support requirements presented in Table 3.2 differ between the Commission's two reports for scenarios based on 90 days’ network charges outstanding.

Table C.1 DNSP revenues

Jurisdiction	DNSP	Annual revenue ($m 2013-14)
Queensland	Energex	1,692
	Ergon	1,686
New South Wales	AusGrid	2,435
	Endeavour	1,030
	Essential	1,402
Victoria	Powercor	562
	SP AusNet	524
	United	360
	CitiPower	249
	Jemena	239
South Australia	SA Power Networks	875
Total		11,055

Source: AER and Frontier Economics.

Note: Annual revenues are for the 2013-14 financial year for all DNSPs except Victorian DNSPs. For Victorian DNSPs, annual revenues are for the 2013 calendar year.

As a retailer's individual credit allowance 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.

D Draft scope of further work to implement a framework to respond to a large participant failure

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 jurisdictional energy departments to form a working group to implement a framework for decision making in response to the failure of a systemically important market participant (SIMP) in the NEM.

This appendix sets out a draft scope of work for this working group.[368]

D.1 Context for this scope of work

The Commission undertook a review of financial market resilience in the NEM, following a request from the COAG Energy Council 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.[369]

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 may not be adequate to respond to the failure of a SIMP. A 'SIMP' is a market participant whose failure, because of the size of their retail loads, would cause significant and immediate financial disruption to the electricity market and threaten financial system stability in the NEM by triggering financial contagion.

In addition to recommending specific changes that would apply in response to the failure of a SIMP, the Commission also recommended changes be made to the retailer of last resort (ROLR) scheme and the process for suspending a market participant from the wholesale market. These changes sought to better manage the risks to financial system stability in the NEM following the failure of a retailer or a market participant experiencing financial distress.

368 Appendix E sets out a separate scope of work for jurisdictional energy departments, in consultation with Commonwealth, State and Territory Treasuries, to develop the detailed design of alternative stability arrangements which could apply in the event of a large participant failure.

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

D.1.1 Decision making framework to respond to a large participant failure

The Commission recommended that a separate decision making framework be implemented to facilitate a timely, proportionate and suitable response to a SIMP experiencing some significant financial distress or failure. The framework would centre on an objective to maintain financial system stability of the NEM as a whole by minimising the impact of the failure of a SIMP on consumers and the market.

This decision making framework would elevate decision making to a single point, with decisions in relation to the management of, and response to, a SIMP failure made by the Chair of the COAG Energy Council. This would allow decisions relating to the suspension of the SIMP from the market, the revocation of retailer licences, and the application of the ROLR scheme, normally made by the Australian Energy Market Operator (AEMO) and the Australian Energy Regulator (AER), to be instead made by the Chair of the COAG Energy Council.

Under this framework, decision making could be delegated by the Chair of the COAG Energy Council to another person. However, the delegate would need to have access to the same powers, resources, and advice as the Chair of the COAG Energy Council to enable them to make the required decisions in a timely manner. Decision making by the Chair of the COAG Energy Council or their delegate, would be undertaken in close cooperation with State and Territory energy ministers. The existing market and regulatory bodies, through the establishment of a 'NEM Resilience Council', would advise the Chair of the COAG Energy Council on the appropriate responses to the failure of a SIMP and relevant factors to consider using their existing information gathering powers. The NEM Resilience Council would be comprised of the Commission, AEMO, the AER, and the Australian Securities and Investments Commission.

This decision making framework would allow decision making in response to a SIMP failure to:

- establish a clear objective that would guide decision-making on the appropriate response to a SIMP failure;
- establish clear and accountable decision-making at the appropriate level;
- enable flexibility for all relevant issues to be taken into account when responding to a SIMP failure, including the physical and financial stability of the NEM and wider considerations regarding, for example, consumer and investor confidence, competition and market structure impacts, and impacts on the broader economy;
- facilitate and support coordination and cooperation between relevant organisations; and
- pool all expertise and information necessary to enable a comprehensive assessment and make informed decisions.

D.2 Scope of work in implementing a framework to respond to a large participant failure

The following issues should be considered in implementing a framework for decision making in response to the failure of a SIMP in the NEM:

- the detailed methodology that should be used to classify which market participants should be SIMPs;
- if and how a government decision on SIMP classification could be challenged;
- how the objective that applies in the event of a SIMP failure could best be included in relevant legislation, including implications for the Corporations Act;
- how decisions by government on the appropriate response to a SIMP failure are made, if and how they are made public, and if and how they could be challenged before a court;
- how transfer of responsibility for decision-making in the event of a SIMP failure from energy market bodies to government could best be implemented;
- where the Chair of the COAG Energy Council seeks to delegate decision making, the process that would be used for this to occur and to provide the delegate with the necessary powers, resources, and advice to make the required decisions in a timely manner;
- how decisions are made within the NEM Resilience Council, the status of those decisions and the NEM Resilience Council's advice;
- how information gathered by individual NEM Resilience Council members could be shared with other members, including confidentiality aspects;
- the role and functions of the NEM Resilience Council secretariat;
- how this decision making framework should be implemented through changes to laws and rules, including if and to what extent the framework should also apply to gas retail activities undertaken by SIMPs; and
- to the extent that any form of government funding or guarantees are required, how that would be funded and recovered.

D.2.1 Consultation and expert advice

In undertaking this scope of work, the working group should:

- have regard to the analysis undertaken by the Commission in its Review of financial market resilience in the NEM;

- consult with COAG Energy Council officials and keep the COAG Energy Council informed of progress;
- publicly consult with stakeholders, including market participants;
- consult with relevant government and regulatory bodies including the AEMC, AEMO, the AER, and the Australian Securities and Investments Commission; and
- seek input from expert advisers where appropriate.

D.2.2 Outputs

The outputs of this work will include draft changes to legislation and rules to give effect to the decision making framework to respond to the failure of a SIMP.

E Draft scope of further work to design alternative 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 jurisdictional energy departments, in consultation with Commonwealth, State and Territory Treasuries, to form a working group to develop the detailed design of alternative stability arrangements for the NEM, involving a form of special administration.

This appendix sets out a draft scope of work for this working group.[370]

E.1 Context for this scope of work

The Commission undertook a review of financial market resilience in the NEM, following a request from the COAG Energy Council 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.[371]

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 may not be adequate to respond to the failure of a systemically important market participant (SIMP). A 'SIMP' is a market participant whose failure, because of the size of their retail loads, would cause significant and immediate financial disruption to the electricity market and threaten financial system stability in the NEM by triggering financial contagion.

In addition to recommending specific changes that would apply in response to the failure of a SIMP, the Commission also recommended changes be made to the retailer of last resort (ROLR) scheme and the process for suspending a market participant from the wholesale market. These changes sought to better manage the risks to financial system stability in the NEM following the failure of a retailer or a market participant experiencing financial distress.

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370 Appendix D sets out a separate scope of work for jurisdictional energy departments to implement a decision making framework for responding to a large participant failure.

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

E.1.1 Alternative stability arrangements for responding to the failure of a SIMP

The Commission recommended that a separate decision making framework be implemented to facilitate a timely, proportionate and suitable response to a SIMP experiencing some significant financial distress or failure. The framework would centre on an objective to maintain financial stability of the NEM as a whole by minimising the impact of the failure of a SIMP on consumers and the market.

This decision making framework would elevate decision making to a single point, with decisions in relation to the management of, and response to, a SIMP failure made by the Chair of the COAG Energy Council. This would allow decisions relating to the suspension of the SIMP from the market, the revocation of retailer licences, and the application of the ROLR scheme, normally made by the Australian Energy Market Operator (AEMO) and the Australian Energy Regulator (AER), to be instead made by the Chair of the COAG Energy Council.

Where it is clear that a SIMP can no longer meet its financial obligations and a market based solution is not viable, the Chair of the COAG Energy Council would be responsible for determining whether the ROLR scheme or alternative arrangements should be applied. In some cases, the ROLR scheme and general insolvency processes may not adequately respond to the failure of a SIMP. In particular:

- While the ROLR scheme is likely to be effective where a small- or medium-sized retailer fails, if a SIMP failed the ROLR could exacerbate the risk of financial contagion. This is because of the significant financial demands that would be placed on the ROLR as a large number of customers would be transferred to the ROLR in a short timeframe; and

- Standard forms of external administration applying under Australian law cannot be relied on to provide for the continuity of retail services to customers and the maintenance of financial stability in the NEM. These processes 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 its wholesale market obligations.

As a result the current arrangements, even with the Commission's proposed changes to the ROLR scheme, may not manage, and could exacerbate, the significant flow-on effects to other market participants that are likely to occur when a SIMP fails. In addition to the risk of financial contagion, there are other policy concerns including the impact on investor confidence and the impact on competition in the NEM. All of these impacts are likely to be detrimental to consumers.

The Commission concluded that there is merit in developing alternative arrangements - termed alternative 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.

E.2 Scope of work in developing the design of alternative stability arrangements

The following issues should be considered in developing the detailed design of alternative stability arrangements for the NEM:

- 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;
- the roles and responsibilities of governments and regulatory bodies in administering the stability arrangements;
- which businesses and activities should be included in the arrangements;
- where an external administrator is to be appointed, the role of the government in their appointment;
- identifying the changes required to the legal framework and market arrangements to support the stability arrangements;
- how any funding would be sourced and provided, including the process for the recovery of any government funding which has been provided; and
- identifying how the stability arrangements are triggered, and when they come to an end.

E.2.1 Consultation and expert advice

In undertaking this scope of work, the working group should:

- consult with COAG Energy Council officials and keep the COAG Energy Council informed of progress;
- publicly consult with stakeholders, including market participants;
- consult with relevant government and regulatory bodies including the AEMC, AEMO, the AER, and the Australian Securities and Investments Commission; and
- seek input from expert advisers where appropriate.

E.2.2 Relevant considerations

In designing the alternative stability arrangements, regard should be given to:

- the analysis undertaken by the Commission in its Review of financial market resilience in the NEM;

- 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.

E.2.3 Outputs

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 rules to give effect to the alternative stability arrangements.

F Case studies where decision making is elevated

This appendix sets out further detail on two case studies of regimes where decision making is elevated to manage crises or allow broader policy considerations to be taken into account. The similarities to the Commission's proposed decision making framework to address the failure of a SIMP are also discussed in relation to each case study.

F.1 Case study 1: The Swiss Financial Market Supervisory Authority

Overview

The Swiss Competition Commission (SCC) is responsible for determining whether bank mergers or "combinations" are to be approved or prohibited. However, where a bank merger might be the result of a failure of one of the merged parties, a merger decision can be elevated to the Financial Market Supervisory Authority (FINMA). FINMA can allow a merger to proceed to give priority to the interests of creditors that might normally be rejected purely on competition grounds. The FINMA can also accelerate the process and provide conditional approval even before the full merger notification is made. FINMA must invite the SCC to provide a submission to it when FINMA exercises the SCC's power.

While there have been banking mergers in Switzerland since the legislation was introduced, FINMA has not invoked its powers to make these merger decisions.

F.1.1 Purpose and history of framework

The SCC normally has the power to prohibit or authorise a merger subject to conditions and obligations, if a preliminary investigation indicates that the merger:

- would create or strengthen the dominant position of a party to eliminate effective competition; and
- does not improve the conditions of competition in another market in a way that outweighs the harmful effects of the dominant position of a party.[372]

The Federal Act on Cartels and other Restraints of Competition of 6 October 1995 (Cartel Act) enables FINMA to take the place of the SCC for reasons related to creditor protection.[373] If the SCC intended to prohibit a merger on purely competition grounds,

[372] Federal Act on Cartels and other Restraints of Competition of 6 October 1995 (Switzerland) Article 10

[373] Federal Act on Cartels and other Restraints of Competition of 6 October 1995 (Switzerland) Article 10.

this provision would allow FINMA to step-in and protect the interests of creditors where they would otherwise be ignored.[374]

FINMA was established in 2009 by the *Federal Act on the Swiss Financial Market Supervisory Authority* as a response to the Global Financial Crisis. It was part of an effort to increase the efficiency of Switzerland's financial regulatory system with the primary objectives of protecting creditors, investors and insured persons and ensuring the "proper functioning" of the financial market.[375]

This change amended the Cartel Act to provide FINMA with the power to become the elevated decision maker as a safety mechanism to ensure that creditor's interests are not ignored. Previously these reserve powers had been held by the Federal Banking Commission. Where a merger would affect the interests of creditors, FINMA has the power, if it deems it necessary, to "take the place" of the SCC and thereby take into account and give priority to the creditors' interests over any competition issues. This addresses the possibility that a merger might be the result of one of the merged parties facing bankruptcy or administrative closure, and allows the merger to proceed despite competition issues if it is necessary to protect creditors' interests.

Switzerland was one of a number of countries to amend their merger control regulations to allow creditors' interests to be taken into account. Globally, three different mechanisms were used to allow for the consideration of creditors' interests:

1. allowing a bank's merger to be exempted from merger control if a particular body decides it is in the best interests of the country's financial system (for example, in Canada);

2. allowing a particular body to overturn a merger decision of the competition authority if this conflicts with a decision of the supervisory authority (for example, in the Netherlands); and

3. the case in Switzerland, allowing a supervisory authority (FINMA) to replace the competition authority (the SCC) and approve a merger if necessary.

FINMA's elevated decision making power is also consistent with its key objectives to protect creditors and ensure the proper functioning of the financial market, and contribute to sustaining the reputation and competitiveness of Switzerland's financial centre.

As an independent public body FINMA has the capacity to react to changes in the financial markets quickly and autonomously; it does not require approval or consent to exercise its jurisdiction and can therefore act immediately to protect creditor interests in the event they may be prejudiced by the prohibition or authorisation of a merger.

374 Federal Act on the Swiss Financial Market Supervisory Authority 2009 (Switzerland) Article 5.

375 Federal Act on Cartels and other Restraints of Competition of 6 October 1995 (Switzerland) Article 5.

F.1.2 Legal structure of framework

What triggers the framework?

Where a merger of banks is required to be filed with the SCC Secretariat, the SCC must immediately notify FINMA.[376] If FINMA deems a merger of banks necessary to protect creditors' interests, it will conduct the investigation in the SCC's place. FIMNA's investigation would follow the same process as is set out in the Cartel Act for the SCC.

While merger parties cannot usually implement a merger for one month following notification to the SCC, FINMA may allow mergers to be implemented provisionally in a shorter period in exceptional circumstances.[377] The affected banks must also be notified that an investigation is being conducted within one month of receiving the notification. FINMA must publish the principal terms of the notification and the decision to investigate in the Federal Gazette and Swiss Official Trade Journal, and provide a time frame within which third parties may make submissions.[378] The investigation must then be completed within four months of the notification, unless FINMA is prevented from doing so as a result of the merger itself.[379]

Following submissions and the conclusion of the investigation FINMA may then, either at the request of the banks involved or by its own authority, allow implementation of any stage of the merger proceedings. This may be either unconditionally or with conditions based on the SCC's submissions.

Does the new decision maker have to have regard to the same considerations as the original decision maker?

Similarly to the SCC, FINMA must take into account the effect that the exercise of its jurisdiction has on competition.[380]

What involvement does the original decision making body have?

If FINMA exercises its power under the Cartel Act, the SCC is invited to submit an opinion on competition issues associated with the merger.

376 Ordinance on the Control of Concentrations of Undertakings 1996 (Switzerland) Article 10

377 Federal Act on Cartels and other Restraints of Competition of 6 October 1995 (Switzerland) Article 33.

378 Ordinance on the Control of Concentrations of Undertakings 1996 (Switzerland) Article 18.

379 Federal Act on Cartels and other Restraints of Competition of 6 October 1995 (Switzerland) Article 33.

380 Federal Act on the Swiss Financial Market Supervisory Authority 2009 (Switzerland) Article 7.

F.1.3 Has the framework been used?

While there have been mergers in Switzerland within the banking sector since the legislation was introduced, these have been authorised by the SCC as FINMA presumably made the decision not to invoke its jurisdiction.

F.1.4 Similarities between the case study and the AEMC's proposed decision making framework for responding to a SIMP failure

The main similarities between this case study and the Commission's SIMP framework are:

- Elevated decision making is used to allow broader community impacts to be considered. The Chair of the COAG Energy Council would exercise AEMO's and the AER's powers, but give precedence to the SIMP failure response objective. Similarly, FINMA is able to exercise the SCC's powers, but give precedence to the objective of protecting creditors.
- Greater flexibility is provided to the elevated decision maker to exercise powers more swiftly. The Chair of the COAG Energy Council would have the ability to take additional factors into account and make decisions in a more compressed timeframe than AEMO and the AER. Similarly, FINMA also has the flexibility to make decisions in a shorter timeframe, if necessary, than the SCC.
- There is a single decision making point. As discussed above, under the Swiss legislation, FINMA is required to consider both creditors' interests and competition issues. Similarly, the AEMC framework proposes that the powers of the different market bodies be exercised by the Chair of the COAG Energy Council who would consider both issues that would have been considered by AEMO and the AER, as well as broader financial system stability under the SIMP failure response objective.
- The normal decision maker has the ability to provide advice to the elevated decision maker.[381] Under the Swiss legislation, the SCC is allowed to make submissions to FINMA while the investigation is being conducted. Under the AEMC's framework the relevant market bodies (being AEMO, the AER, the AEMC and ASIC) provide advice as a single "NEM Resilience Council". This enables FINMA and the Chair of the COAG Energy Council to be well-informed by the normal decision makers of the factors that may influence their decision.
- In both cases, the original decision-makers cannot limit or frustrate the decision of the elevated decision makers. They may only make submissions for the elevated decision maker's consideration.
- The elevated decision maker has power to decide when to take over decision making from the normal decision maker. FINMA has the power under the Cartel

381 See section 6.4.2 - the role of the "NEM Resilience Council".

Act to decide whether a particular merger attracts its jurisdiction, if it is necessary for reasons related to creditors' interests. The AEMC's proposed framework also recommends the Chair of the COAG Energy Council has the power to classify participants as a SIMP. Once a participant has been classified as a SIMP, the Chair of the COAG Energy Council would have responsibility for decision making in the event of its failure.

In a departure between the two frameworks, the SCC does not have the opportunity to provide advice on whether FINMA should exercise its jurisdiction. Under the AEMC's proposed framework, the NEM Resilience Council would provide advice on which participants should be classified as SIMPs.

F.2 Case study 2: Michigan Local Government Financial Emergency Management

Overview

The Michigan Governor has the power to declare a financial emergency in a municipality of the State. Once declared, one of the ways the emergency can be managed is to appoint an "emergency manager". The emergency manager can "act for and in the place and stead of the governing body and the office of the chief administrative officer of the local government." That is, they assume all the powers of the City Council and the Mayor combined.

Since 1990, emergency managers have been appointed to restructure the finances of nine Michigan municipalities, including the City of Detroit during the Global Financial Crisis. In addition, the school districts of Detroit, Highland Park and Muskegon Heights currently are operating under emergency manager control.

F.2.1 Purpose and history of framework

The state of Michigan introduced an emergency framework to deal with local government financial emergencies in 1990. A series of amendments were made to the financial emergency framework over 2011 to 2012 to address the possibility of whether emergency managers should be able to consider collective bargaining agreements for government employees. The current financial emergency framework, the Michigan Public Act 436[382] (PA 436), took effect in March 2013.

PA 436 empowers the State of Michigan to intervene in municipalities and school districts facing financial crisis through the appointment of an emergency manager who assumes many of the powers ordinarily held by local elected officials. An emergency manager also has the power to reject or modify collective bargaining agreements (subject to certain conditions and limitations) for government employees, and exert control over many municipal functions ordinarily performed by elected local officials.

382 Michigan Complied Laws, §§141.1541-1575.

The stated purpose of PA 436 is, amongst other things, to:

- preserve the capacity of local units of government and school districts to provide or cause to be provided necessary services essential to the public health, safety, and welfare;
- authorise a declaration of the existence of a financial emergency within a local unit of government or school district;
- prescribe remedial measures to address a financial emergency within a local unit of government or school district;
- provide for the appointment and to prescribe the powers and duties of an emergency manager for a local unit of government or school district; and
- provide for the modification or termination of contracts under certain circumstances.

F.2.2 Legal structure of framework

What triggers the framework?

Under PA 436, where the Governor of Michigan determines that a 'financial emergency' exists, the local government must select between one of four alternatives within seven days of the Governor's determination:

- the entry into a consent agreement with the State;
- the appointment of an emergency manager;
- a neutral evaluation (mediation) process; or
- the filing of a petition for relief under Chapter 9 of Title 11 of the United States Code (the Bankruptcy Code).

Does the elevated decision maker have to have regard to the same considerations as the normal decision maker?

PA 436 provides that, on appointment, an emergency manager steps into the shoes of the "governing body" and "chief administrative officer" of the entity (in the case of the City of Detroit, the City Council and the Mayor, respectively).

The powers of an emergency manager under PA 436 also includes some powers which are significant in nature. This includes the power to, amongst other matters, to:

1. analyse factors contributing to the entity's financial condition and recommend remedial steps;

2. approve, modify or disapprove of the entity's budget and to limit amounts appropriated or spent;

3. require and approve, modify or disapprove of a plan for payment of all obligations of the entity;

4. modify or consolidate departments and appoint, supervise and remove unelected heads of such departments; and

5. reduce, suspend or eliminate compensation (excepted vested retirement benefits) of officials of the entity.

Some of the specific powers and responsibilities the emergency manager has are set out in further detail below.

Financial Plan

The emergency manager is required to develop a written financial and operating plan which must provide for:

- conducting the operations of the local government within estimated revenue;
- the payment in full of all uncontested legal obligations of the entity;
- the modification, rejection, termination and renegotiation of any contracts pursuant to PA 436;
- the timely deposit of any required payments into any pension fund; and
- any other actions necessary, in the emergency manager's discretion, to address the financial emergency.

The emergency manager is not required to consult with the local government in developing the financial plan.

Authorisation to Proceed Under Federal Bankruptcy Law

An emergency manager may recommend to the Governor that the entity be authorised to seek relief under chapter 9 of the Federal Bankruptcy Law if the emergency manager considers no reasonable alternative to rectifying the financial emergency of the entity exists. The Governor may approve or disapprove the request, and also may approve a chapter 9 filing with additional conditions.

Collective Bargaining Agreements

PA 436 suspends the local government's obligation to collectively bargain, effective 30 days after the execution of a consent agreement, unless the State Treasurer determines otherwise. In addition, PA 436 grants an emergency manager the power to reject, modify or terminate collective bargaining agreements.

Although it does not require an emergency manager to collectively bargain, PA 436 does require an emergency manager to at least "meet and confer" with the "appropriate bargaining representative" of the employees covered by the relevant agreement. PA 436 also provides that plans contemplating the "rejection, modification or termination" of collective bargaining agreements be "temporary and … [not] target specific classes of employees."

What involvement does the original decision making body have?

The normal decision makers (the governing body of the local government) maintains some ability to influence a number of important functions of the emergency manager.

Specifically, PA 436 grants the governing body of the local government a period of ten days to approve or disapprove of an action proposed by the emergency manager to:

- reject, modify or terminate collective bargaining agreements ;
- sell, lease, convey, assign or otherwise use or transfer the assets, liabilities, functions, or responsibilities of the local government;
- authorise the borrowing of money by the local government; and
- in relation to a school district, use the assets of the school district to meet past or current obligations or assure the fiscal accountability of the school district, provided doing so does not impair the education of the pupils of the school district.

If the governing body disapproves an action, it has a further period of seven days to propose an alternative plan for the consideration of the Local Emergency Financial Assistance Loan Board, which is then required to select between the two alternatives.

The Local Emergency Financial Assistance Loan Board must approve the proposal that 'best serves the interest of the public in that local government'.

F.2.3 Has the framework been used?

Since 1990, emergency managers have been appointed to restructure the finances of the Michigan municipalities of Hamtramck, Highland Park, Flint, Three Oaks, Pontiac, Ecorse, Benton Harbor, Allen and the City of Detroit. As of April 2013, emergency managers remain in place in all of these municipalities except Hamtramck, Highland Park and Three Oaks.

In addition, the school districts of Detroit, Highland Park and Muskegon Heights currently are operating under emergency manager control. In each of these municipalities and school districts, emergency manager actions have provoked public opposition and, in some cases, legal challenges.

As the scope of the Detroit financial emergency is unprecedented, and the restructuring of its finances is occurring under a new statutory scheme, the breadth of and limits to the emergency manager's powers remain uncertain. However in other Michigan municipalities and school districts, emergency managers have operated under predecessor statutes, at various times, for more than a decade.

F.2.4 Similarities between the case study and the AEMC's proposed decision making framework for responding to a SIMP failure

The main similarities between this case study and the Commission's SIMP framework are:

- Elevated decision making is used to respond to significant financial instability. Under the AEMC’s framework, decision making is elevated to the COAG Energy Council to address the potential financial instability that could result from the failure of a SIMP, while under the Michigan financial management framework an emergency manager may be appointed to take on the functions of local government in response to a financial emergency.

- A single decision maker is appointed who assumes most of the powers of the normal decision makers during a financial crisis. In both this case study and the AEMC’s proposed framework, decision making is co-ordinated and elevated to a single decision maker.

However, this example is different in so far as the normal decision makers, city councils and mayors, are directly responsible for the financial crisis and are likely to resist the imposition of the emergency management framework. The normal decision makers also maintain a limited ability to influence some of the key functions of the emergency manager such as the borrowing of money and decisions around collective bargaining agreements for government employees. In contrast, under the AEMC’s proposed framework, the normal decision makers, the AER and AEMO, would form part of the “NEM Resilience Council”, which would have an active role in providing advice to the Chair of the COAG Energy Council to inform their decision making.