2 July 2015

Mr John Pierce
Chairman
Australian Energy Market Commission
Level 5, 201 Elizabeth Street
Sydney NSW 2000

Dear Mr Pierce

The NSW DNSP's Submission to the AEMC Retailer-Distributor Credit Support Requirements Consultation Paper

The NSW Distribution Network Service Providers, Ausgrid, Endeavour Energy and Essential Energy (the NSW DNSPs) welcome the opportunity to provide this joint submission in response to the *Retailer-Distributor Credit Support Requirements, Consultation Paper*.

This submission focuses on the AGL Energy Limited (AGL) Rule change (AGL Rule change) request to the Australian Energy Market Commission (AEMC) to amend the credit support arrangements in the National Electricity Market (NEM).

The NSW DNSPs do not support the AGL Rule change as it removes the Maximum Credit Allowance (MCA) which means retailers have an unlimited credit with DNSPs regardless of market share. This is because it lowers the probability of default benchmark from A- to BBB- which increases the DNSP's risk tolerance, shifting the risk from retailers to DNSPs.

We note that the AEMC approach to its assessment of the proposed Rule is to develop a set of principles that will allow for the consideration of other possible Rules and that this is collectively referred to as a 'Rule to manage the risk of retailer default'.

As well as broadly assessing the AEMC's principles and addressing the consultation questions, we provide evidence as to why neither the AGL Rule change nor current credit support provisions achieve the National Electricity Objective (NEO) or the aforementioned principles. We are strongly in favour of a credit support calculation that is based on the credit worthiness of the retailer and the level of exposure to that entity rather than based on the DNSP's annual revenue. In doing so, we provide a case for some enhancements/amendments to the current credit support requirements in the National Electricity Rules (NER or 'The Rules') to include a concentration risk and a realignment of Dun & Bradstreet's probabilities of default to the rating agencies probabilities of default.

We understand that the AEMC will be publishing an options paper for stakeholder consultation prior to the preparation of the draft determination. We support this important step, and would like to see our proposed issues and solutions to this Rule change be presented as viable alternative option in the paper. To this end, we would be happy to meet with the AEMC to further elaborate on our alternative approach. The most effective way of mitigating the potential credit and cash flow impacts from a retailer failure is through having credit support arrangements that can be enforced and that are effective.

Attached to this submission is a report titled *Networks NSW Impacts of Credit Support Rule Change Request* that outlines scenarios capturing the potential impacts of the proposed Credit Support Rule Change Request. The report further highlights that the Rule change proposal, if implemented, will effectively provide an unlimited credit allowance (i.e. unsecured credit) to BBB- rated retailers and above for their outstanding network charges (NCs) billings collected from customers by retailers on behalf of DNSPs. This creates a corresponding decrease in retailer credit support requirement (CSR) calculation provided to DNSPs to mitigate for the potential loss pursuant to retailer default.

If you would like to discuss our submission further or arrange a meeting with NSW DNSP representatives, please contact Mr Mike Martinson, Group Manager Regulation at Networks NSW on (02) 9249 3120 or Mr Robert Millar, Regulatory Policy Manager at Ausgrid on (02) 9269 4168.

Yours sincerely

Vince Graham
Chief Executive Officer
Ausgrid, Endeavour Energy and Essential Energy

Attachment A: Executive Summary of the NSW DNSP's Submission
Attachment B: Response to the AEMC Consultation Paper Questions
Attachment C: Networks NSW Impacts of Credit Support Rule Change Request Report

Attachment A – Executive Summary of the NSW DSNP's Submission

The NSW DNSP's Submission to the AEMC Retailer-Distributor Credit Support Requirements Consultation Paper

The NSW Distribution Network Service Providers, Ausgrid, Endeavour Energy and Essential Energy (the NSW DNSPs) welcome the opportunity to provide this joint submission in response to the *Retailer-Distributor Credit Support Requirements, Consultation Paper*.

This submission focuses on the AGL Energy Limited (AGL) Rule change (AGL Rule change) request to the Australian Energy Market Commission (AEMC) to amend the credit support arrangements in the National Electricity Market (NEM).

The NSW DNSPs do not support the AGL Rule change as it removes the Maximum Credit Allowance (MCA) which means retailers have an unlimited credit with DNSPs regardless of market share. This is because it lowers the probability of default benchmark from A- to BBB- which increases the DNSP's risk tolerance, shifting the risk from retailers to DNSPs.

An inappropriate risk shifting/transfer to the DNSP: Move from A- to BBB- Benchmark

The critical element of the Rule change request is a proposed shift from the current A- benchmark rating to a BBB- benchmark rating. The impact of the proposed change will increase the credit allowance (CA) of all retailers with a rating below the current A- benchmark, by replacing the A- benchmark rating with a BBB- benchmark rating (as circled in the table below).

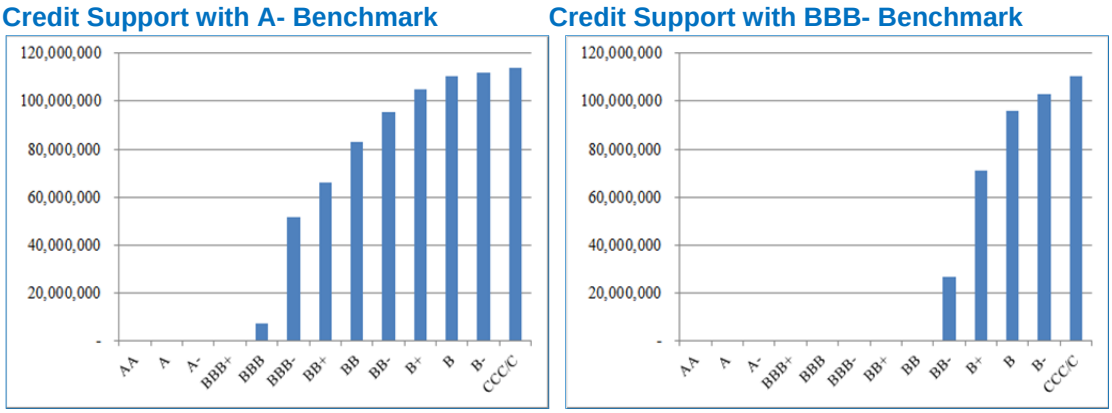
This implies BBB- rated retailers and above would receive an unlimited allowance, as such there would be no credit support requirement for a retailer unless it is rated a speculative grade of credit (i.e. BB+) or below.

The increase in allowance pursuant to the proposed shift in benchmark credit rating is a significant change to the current settings in Schedule 6B.1. It effectively increases the DNSPs risk tolerance by increasing the risk of a potential shortfall in cash from the retailer to the DNSP. The proposal has been made without a full consideration of the financial impacts on DNSPs in light of this risk transfer.

Table 1: Increase in CA (%) pursuant to the rule change request (The 'Cause'):

Rating	PD	CA (%) A-	CA (%) BBB+	CA (%) BBB	CA(%) BBB-
AA	0.02	100.00%	100.00%	100.00%	100.00%
A	0.09	100.00%	100.00%	100.00%	100.00%
A-	0.09	100.00%	100.00%	100.00%	100.00%
BBB+	0.17	52.94%	100.00%	100.00%	100.00%
BBB	0.24	37.50%	70.83%	100.00%	100.00%
BBB-	0.41	21.95%	41.46%	58.54%	100.00%
BB+	0.53	16.98%	32.08%	45.28%	77.36%
BB	0.82	10.98%	20.73%	29.27%	50.00%
BB-	1.34	6.72%	12.69%	17.91%	30.60%
B+	2.7	3.33%	6.30%	8.89%	15.19%
B	6.26	1.44%	2.72%	3.83%	6.55%
B-	9.86	0.91%	1.72%	2.43%	4.16%
CCC/C	27.98	0.32%	0.61%	0.86%	1.47%

Graph 1: Impact of the Rule change on Ausgrid's credit support amount on shifting the benchmark from A- to BBB- for a 40% market share retailer.



The Rule change proposed would effectively remove the sole measure a DNSP presently has to manage its risks to the dominant player in its network area.

Given potential timing lags between a 'name crisis' event and a credit downgrade it is arguably too late to collect credit support following a downgrade to the sub-investment ratings i.e. BB+ or lower.

Moreover, failure of the dominate retailer would severely constrain our cash flow, compel us to seek emergency funding to fulfil our financial obligations, disrupt the market during the Retailer of Last Resort (ROLR) event and process, and result in the inequity of all customers of the DNSP bearing the costs via an approved pass through event and with consequent delays, not to mention the risk of broader financial contagion.

The Rule Change does not achieve the National Electricity Objective (NEO)

We strongly disagree with the Rule change and do not believe that it achieves the National Electricity Objective (NEO). It represents an inappropriate risk transfer from retailers to DNSPs and undermines the traditional roles and responsibilities of these two market participants. The traditional role of retailers is to provide a front-end customer service and billing management function, whereas DNSPs provide reliable, secure and safe electricity supply to customers in the long term interests of consumers. DNSPs are subject to a range of regulatory obligations to ensure the efficiency (and prudency) of its capital investments in the long term interests of consumers. Furthermore, DNSPs receive no reward for assuming this increase in risk appetite due to the fixed and regulated nature of network billings.

We do not agree with AGL's argument that this Rule change will free up capital for retailer investment has any relevance to the NEO and as such the Rule change proposal should be rejected. We strongly disagree with retailer attempts to shift risk to networks and consider this or any other Rule change that attempts to do so to be self-serving and not in the long term interests of consumers.

Network businesses are under immense pressure to reduce network prices for customers and the NSW DNSPs are undertaking extensive efficiency programs to keep costs down. We do not support this Rule change proposal and consider that shifting costs and risks to network businesses in order to improve the profitability of (particularly large) retailers is not in the long term interests of consumers. Enabling networks to recovering the costs of a failed retailer on an *ex post* basis is by far a second best option compared with setting an appropriate *ex ante* credit support regime that sends more timely signals to the market of potential retailer distress

We would submit that even if there was some societal benefit from transferring risk from retailers to DNSPs, which we do not consider to be the case, the modelling which underpins the Rule change does not support AGL's argument. For example, AGL estimates the value of credit guarantees to be in the range of $250 to $450 million across both the NEM and the same jurisdictions in the gas market.

However, Ausgrid has experience with implementing the current credit support provisions and does not consider this statement as factually correct.

The amount of credit support held by the three NSW DNSPs ranges between 1/5th to 1/10th ($40 million to $50 million) of the amount purported by this paper, and at a two percent direct cost to the retailer equates to no more than one million dollars.

Furthermore any argument based on retailer investment objectives seem at odds with AGL and Origin Energy's recently announced divestments including one billion dollars in asset sales[1].

Alternative mechanisms in the Rules will not alleviate the potential cash shortfall risks for DNSPs and are not a substitute for an effective credit support regime.

We note that in the consultation paper and the NEM Financial Resilience Review ('The Review'), the AEMC raises potential alternative avenues to the credit support framework for DNSPs to recover costs associated with a retailer failure. The alternatives suggested include 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 or a retailer insolvency pass through event. However, in our submissions we have provided reasons why these mechanisms are not appropriate[2] and provide further detail in this submission that while DNSPs operate in a regulated environment, that provides some regulatory mechanisms available for managing risk, they are not always effective or appropriate for certain circumstances.

We believe that credit support provisions should provide appropriate levels of credit support across the entire portfolio of retailers, namely high value/ low risk of default and low value/high risk of default. The provisions needs to take into account both the likelihood of default of an individual retailer (based on their credit rating and payment history) and the level of exposure to an individual retailer.

We submit that the cost of credit support is a necessary and reasonable business expense that a dominant retailer presenting the greatest risk to the market would be expected to incur. While we do not support the AGL Rule change, our submissions to the Review provided evidence that the current credit support arrangements do not provide a sufficient means of managing credit risks faced by DNSPs for both large[3] and small retailers[4]. The AGL Rule change consultation represents an opportunity to make a more preferable Rule by re-examining these issues from a first principles and evidence-based review.

AEMC approach to the assessment framework

We note that the AEMC approach to its assessment of the proposed Rule is to develop a set of principles that will allow for the consideration of other possible Rules and that this is collectively referred to as 'a rule to manage the risk of retailer default'[5]. The overall framework must of course be in the long term interests of consumers and this can be achieved by ensuring incentives on retailers and DNSPs to make prudent operational decisions relating to their credit risk profile and risk of default.

Our approach to responding to the draft Rule change proposal

As well as broadly assessing these principles (and addressing the consultation questions) we provide evidence as to why neither the AGL Rule change nor current credit support provisions achieve the AEMC's principles. Instead, we recommend a straight forward credit support calculation that is based on

[1] http://www.afr.com/business/energy/gas/agl-energy-targets-1b-in-asset-sales-200m-cost-cuts-by-201617-20150526-gh9bge
[2] NSW DNSPs response to the National Electricity Amendment (Retailer insolvency events – cost pass through provisions) Rule 2015 Consultation Paper.
[3] When the National Energy Customer Framework (NECF) was introduced in NSW, these arrangements enabled DNSPs to seek credit support in order to mitigate larger exposures to higher rated retailers, however the exposure level threshold excluded smaller retailers. While this was appropriate at time, and is still largely the case given smaller retailers do not substantially add to the risk being carried by the NSW DNSPs as their individual market share is below the material 10 percent, or even 5 percent threshold however we submit that credit support should also be provided by smaller retailers where appropriate. As such, neither regime provides DNSPs with appropriate levels of credit support across the entire portfolio of retailers.
[4] NSW DNSPs response to the NEM Financial Market Resilience Review, p 3.
[5] AEMC 2015, Retailer-Distributor Credit Support Requirements, Consultation Paper, 28 May 2015, Sydney, p 13.

the credit worthiness of the retailer and the level of exposure to that entity rather than based on the DNSP's annual revenue (which is currently used as the basis for credit support calculations).
In our attached report (Attachment C) we provide evidence of the risk shifting from the current A- benchmark rating to a BBB- benchmark rating and the impacts on DNSPs. We argue that the Probability of Default (PD) benchmark should remain at A- (and not reduce to BBB-) to avoid risk shifting/ transferring risks from retailers to DNSPs.

Our review also takes into consideration the deficiencies in the current credit support framework and the Rules, in particular:

- There is no consideration of industry concentration measures to capture single name retailer concentration risk in the Rules. We discuss the potential for a concentration risk premium to be considered as an option in the Rules.
- The Rules facilitate unrealistic credited allowances for unrated retailers through the use of Dun and Bradstreet dynamic (D&B) risk scores. Accordingly we propose that the Rules realign the PD to Standard & Poor's/ Fitch/ Moody's probability of default[6]. Further, the Rules should be explicit that Credit Allowances must be at parent entity level and must be apportioned between entities/ FRMPs within a retailer group, so that retailers can no longer receive multiple credit allowances.

We believe that by addressing these issues, it will provide DNSPs with appropriate levels of credit support across the entire portfolio of retailers, namely high value/ low risk of default (in particular) and low value/ high risk of default.

Next steps

We understand that the AEMC will be publishing an options paper for stakeholder consultation prior to the preparation of the draft determination. We support this important step, and would like to see our proposed issues and solutions to this Rule change be presented as viable alternative option in the paper. To this end, we would be happy to meet with the AEMC to further elaborate on our alternative approach. The most effective way of mitigating the potential credit and cash flow impacts from a retailer failure is through having credit support arrangements that can be enforced and that effective.

[6] The current rules refer Table in Schedule 6B.1 (Clause 6B.B3.1) misalign the probability of default of D&B to S&P's and as a result give unrated retailers unrealistic credit allowances. The proposed changes, if implemented, would mean there would be no credit support requirements for retailer's rated BBB- and above. This is a significant change to the current DNSP *risk appetite* settings as they appear in Schedule 6B.1 of the NER.

Attachment B - Response to the AEMC Consultation Paper Questions

Question 1 Current credit support requirements

(a) Do distributors request credit support in all circumstances permitted under the current arrangements?

The NSW DNSPs have requested credit support from retailers in accordance with the Rules. However, the success of obtaining credit support has varied due to the ambiguity in the current Rules (which will be further frustrated by the AGL Rule change proposal) that need to be addressed.

(b) If not, why not?

There are three major issues with the current Rules, namely:

- The three largest energy retailers each have a Standard & Poor's corporate credit rating which applies to the consolidated entity, its group financial results and risk structure. Each of these large energy retailers operates under multiple financially responsible market participants (FRMP) and various legal entities. However, NSW DNSPs' experience is that a retailer (or retailers) within the group seeks to rely on the corporate credit rating for the rated FRMP and a Dun & Bradstreet dynamic risk score for the other un-rated FRMP's, thereby availing the retailer of multiple credit allowances, resulting in the DNSP having no or inadequate credit support.

- While credit ratings incorporate dynamic measures of risk, they do not address the single name concentration risk that DNSPs have to the largest three retailers that dominate the Australian energy market.

- The current Rules- Table in Schedule 6B.1 (Clause 6B.B3.1) misaligns the probability of default of Dun & Bradstreet to Standard & Poor's and as a result gives unrated retailers unrealistic credit allowances.

We urge the AEMC to consider that these provisions (as part of this Rule change) to ensure that large retailers cannot use a combination of corporate credit rating for a rated FRMP and dynamic risk scores for un-rated entities. As such, in our report we propose that the Rules realign probability of default (PD) to Standard & Poor's/ Fitch/ Moody's probability of default and that Credit Allowances must be at parent entity level and must be apportioned between entities/ FRMPs within a retailer group, so that retailers can no longer receive multiple credit allowances.

We maintain that credit support provisions should provide appropriate levels of credit support across the entire portfolio of retailers, namely high value/ low risk of default and low value/ high risk of default. The provisions needs to take into account both the likelihood of default of an individual retailer (based on their credit rating and payment history) and the level of exposure to an individual retailer.

(c) What issues have been identified by distributors and/or retailers in the implementation of the current credit support requirements?

The AEMC has previously noted that the NER imposes particular obligations of supply on DNSPs but limits their ability to independently manage the commercial risks associated with such supply. This is due to both the highly prescribed nature of the credit support arrangements and the fact that recovery through the regulatory determination process requires a forward estimate of an unknown risk to determine the *ex-ante* allowance[7]. We also note that AEMC acknowledge that the adequacy of the current support regime was raised in response to the consultation paper on the retailer insolvency pass through and the NEM Financial Resilience Review and that as such any submissions received in these processes would be considered as part of this Rule change process[8].

[7] AEMC 2015, Retailer insolvency events - cost pass through provisions, consultation paper, 30 October 2014, Sydney, p 15, 17 and 22.
[8] Ibid, p 34

In its Rule change proposal, AGL raises several issues with the current arrangements which are discussed below.

We note that AGL states that the Maximum Credit Allowance (MCA) is arbitrary[9]. The basis for having a MCA is to limit a DNSP's exposure or loss to a retailer. In the event a retailer fails it is likely to have credit outstanding to one or more DNSPs. Without an effective and enforceable credit support provision, all customers of the DNSP would bear the cost. Moreover, the MCA is not arbitrary, it is a practical allowance devised to cover the likely outstanding balance at any time, even for the largest retailer, and to ensure that cost to the industry in providing credit support is only increased where material risks exist.

The MCA is based on the DNSP's total annual retailer charges (TARC), and as retailers' quarterly read customers pay their bills on average about 3 months in arrears- this is on average 25 percent of a year. DNSPs are not adequately protected for the large exposures from key retailers and the smaller retailers who are higher credit risk with as large and significant credit allowances.

In addition, we do not agree with AGL that the Rules have misaligned the cost materially given that the cost to the industry of providing credit support is only increased where material risks exist.

Under the current Rules, where a retailer has a dominant market share (over 45 percent), a network provider may be entitled to request credit support, however this is based on the retailer's external credit rating and is limited to the amount by which the retailer's network charges liability exceeds the retailer's credit allowance. In previous submissions we have argued that this level of credit support is grossly inadequate, and the DNSP would experience cash flow issues and financial distress in the event of a large retailer failure.

AGL estimates the additional value of credit guarantees to be in the range of $250 to $450 million across both the NEM and the same jurisdictions in the gas market. The NSW DNSPs (Ausgrid) having implemented the provision of the Rules surrounding credit support, does not consider this statement as factually correct. The amount of credit support held by the three NSW electricity distribution network areas ranges between 1/5th to 1/10th ($40 to $50 million) of the amount purported by this paper, and at a two percent direct cost to the retailer equates to no more than $1 million.

This cost of credit support is a necessary and reasonable business expense that a dominant retailer presenting the greatest risk to the market would be expected to incur in order to protect the interests of consumers, and effectively caps the level of losses a DNSP will carry, thereby limiting the financial impact to customers more generally were the dominant retailer to fail.

Question 2 Identification of Appropriate Principles

(a) Are these principles appropriate for designing a rule for managing the risk of retailer default?

The following table summarises the key aspects of the AEMC's consultation paper and principles underpinning a Rule for managing the risk of retailer default.

Key aspect/principle	Response
Promote efficient investment in the electricity and gas markets by freeing up capital currently inefficiently tied up servicing poorly targeted policy objectives.	It is difficult to quantify any positive societal benefits associated with freeing up capital for a retailer to invest by transferring risk to the DNSP. Under AGL's interpretation DNSP's (and therefore customers) would be allocating capital to retailer investments of between $250m to $450m[10].

[9] AGL Rule Change proposal, p 3.
[10] AEMC 2015, Retailer-Distributor Credit Support Requirements, Consultation Paper, 28 May 2015, Sydney, p 8.

Consideration of both the risk of retailer default and the impact of default[11]	It is reasonable for the AEMC to consider both these risks: 'A prudent and efficient network business may also have an aversion to any cascading risk from a large retailer default. A distributor that has a large portion of its revenues from a single retailer may face a cascading risk that if the large retailer were to default, any delay or inability to recover revenue might risk the network business also defaulting on other payments. This could be a substantial risk for distributors such that there could be additional costs in order to avoid the cascading risk of the distributor defaulting on payments in the event of a large retailer default as raised in the AEMC's NER financial market resilience review.' [12] Overall, an effective Rule to manage the risk of retailer default should consider protection for the DNSP against the risk of retailer default: In proportion to each retailer's share of a DNSP's revenue; and Adjusted for any additional cascading risk from a large retailer default. This approach is consistent with *single-name retailer concentration risk* which we discuss in the attached report.
Principles to guide the development and assessment of an effective rule for managing the risk of retailer default[13]**:** **1. The rule allocates appropriate risks to the parties that have the information, ability and incentives to best manage each risk in order to minimise the long-term costs to consumers;** **2. The rule takes into account the risk of retailer default and the impact of default;** **3. The rule takes into account the trade-off between flexibility and regulatory certainty;** **4. The rule takes into account the impact on barriers to entry for retail business; and** **5. The rule takes into account the impact on customers from changes in network revenue as a result of the revenue and pricing principles.**	From a first principles perspective Chapter 6B of the NER outlines the credit limit setting framework for a DNSP. This eliminates principles 3 and 4 as regulatory and competition policy objectives which are best achieved through other instruments, not credit risk objectives. In particular, we do not support principle 4 that 'the rule takes into account the impact on barriers to entry to retail business'. This is because credit support is not a means for encouraging competition; it is a tool to manage credit risk exposure acknowledged to exist between market participants and to do so within set Rules. Instead, we consider that a principle should be added which examines credit support in the context of the roles and responsibilities of retailers and DNSPs. For example, retailers were essentially set up to manage risk in that they manage pricing risk and the rapid and often steep swings in wholesale electricity prices. They do this through a range of hedging policies and, in some cases, by being vertically integrated gentailers. They also perform a customer function in terms of a direct customer service interface and packaging up a range of services, billing (collecting meter data) and payment options. Retailers do not directly supply energy. In our report (Attachment C) we outline how principle 2 is addressed with the Concentration Premium 'add-on' to capture single name retailer concentration risk. What remains is to explain the transfer of cash-flow / liquidity risk to DNSPs pursuant to the Rule change request in light of principles 1 and 5. They are opposites of the same coin: retailers are best placed to decide on risk adjusted returns of their investments (principle 1) and are DNSP customers able to, and should they, fund single retailer investments (principle 5)? Will efficient investment incentives prevail from a transfer of risk to DNSP and its customers? As the current divestment behaviour of the proponent demonstrates, DNSPs customers would not be served well if such investment opportunities were to be taken up.

[11] AEMC 2015, Retailer-Distributor Credit Support Requirements, Consultation Paper, 28 May 2015, Sydney, p 18.
[12] AEMC 2015, Retailer-Distributor Credit Support Requirements, Consultation Paper, 28 May 2015, Sydney, p 18.
[13] AEMC 2015, Retailer-Distributor Credit Support Requirements, Consultation Paper, 28 May 2015, Sydney, p 14.

	As such retailers are best served to manage their own credit risk and cash-flow liquidity risk (i.e. working capital) in line with their own risk appetite and to align their incentives with their own target credit ratings to ensure efficient investment incentives are maintained. DNSPs should not fund retailer investments as this is not their purpose given their obligation to serve.
Alternative mechanisms to address the risk of retailer default including[14]: • **Recovery through the regulatory determination process;** • **Recovery through the cost pass-through mechanism;** • **Recovery through the corporate insolvency process; and** • **Minimising a retailer's network charges liability**	The three recovery mechanisms outlined to the left will not alleviate the potential cash shortfall risk faced by DNSPs and as such are not considered substitutes for CSR. Minimising the retailer's network charges liability through more frequent billing will reduce the cash-flow risk for a DNSP, however it would not alleviate these risks entirely. The substitute for CSR would mean the requirement for increased working capital by retailers in order to pay bills faster; and retailers would need to balance each cost accordingly. This increase in working capital would need to be sourced at a cost to the retailer.

(b) Are there other factors market participants would expect to be considered in an effective rule for managing the risk of retailer default?

Credit support is an ex-ante mechanism which assists DNSPs to mitigate their loss in the event of a retailer failure. Credit support lessens the impact on DNSPs cash flow, reduces the magnitude of costs that DNSPs would need to recover from their customers ex-post and the likelihood of customers suffering significant price shocks or price volatility as a consequence of a retailer failure.

The situation is compounded further when the defaulting retailer is a large retailer and is likely to have more far reaching consequences as a result of a DNSP experiencing cash flow issues and having to borrow money to meet its obligations on short notice (as discussed, this issue aligns with issues explored as part of the NEM financial resilience review).

Under the Rule change proposal, the transfer of risk to DNSPs from retailers is not otherwise compensated for through the existing regulatory framework, including the application of existing pass through provisions. As the systematic (i.e. undiversifiable) risks of the businesses increase, there would need to be a thorough assessment of, amongst other things, the impacts on the return on capital as provided for in Chapter 6 of the Rules. *A priori*, the Rule change proposal may result in an increase in systematic risks that could require a higher return on capital in future regulatory determinations, thereby increasing the costs of supplying electricity and leading to higher electricity prices for customers.

As noted in our response to question 4 (c) below, the risk of retailer default cannot be effectively managed either through statutory mechanisms, including cost pass-through provisions, the overs and unders process under the revenue cap regime, or through commercial mechanisms, such as third-party insurance or where available, negotiation between the parties.

Given the above, the factors/principles should also consider broader financial contagion from cascading failures where substantial cash flow risk is transferred to DNSPs. The traditional roles of DNSPs and retailers can be considered in light of the above. For example, DNSPs are subject to a range of regulatory obligations to ensure the efficiency (and prudency) of its capital investments in the long term interests of consumers. Furthermore, DNSPs receive no reward for assuming this increase in risk appetite due to the fixed and regulated nature of network billings. Retailers on the other hand routinely manage pricing risk and the rapid and often steep swings in wholesale electricity prices.

[14] AEMC 2015, Retailer-Distributor Credit Support Requirements, Consultation Paper, 28 May 2015, Sydney, p 27.

Question 3 Risks and impacts related to retailer default

Have all of the risks faced by distributors related to retailer default been outlined above? If not, what other risks do parties face in relation to network charges due to the risk of retailer default?

Mostly, however DNSPs should not assume the commercial risks of retailers, a more appropriate approach would be to embed a framework of risk mitigating strategies in regulation. The most effective way of mitigating the potential credit and cash flow impacts from a retailer failure is through having credit support arrangements that can be enforced.

Currently we are concerned that the remedies available to DNSPs to enforce requirements for credit support through the conduct provisions are likely to be frustrated due to the time required for court proceedings to resolve such issues. We urge the AEMC to review the effectiveness of current enforcement options, in particular whether the conduct provisions and the ROLR provisions are properly integrated.

Question 4 Management of risk to reduce costs

(a) Do the costs imposed on retailers by the current rules (or potentially by the proposed rules) lead retailers to take actions to better manage their risks in order to reduce their costs?

Two out of the three largest retailers have experienced a ratings downgrade and are presently one level above speculative grade. However, the NSW DNSPs have experienced difficulties in enforcing the credit support provisions, and remain exposed at this time.

(b) Do the costs imposed on gas retailers under their access arrangements (or potentially by the proposed rules) lead retailers to take actions to better manage their risks in order to reduce their costs?

No comment.

(c) Do the risks borne by electricity distributors under the current rules (or potentially by the proposed rules) lead distributors to take actions to better manage the risk of retailer default?

The risk of retailer default cannot be effectively managed either through statutory mechanisms, including cost pass-through provisions, the overs and unders process under the revenue cap regime, or through commercial mechanisms, such as third-party insurance or where available, negotiation between the parties. Only an effective credit support regime provides some risk mitigation for DNSPs. We discuss this below.

DNSPs manage risk in many ways, for example purchasing insurance; asset design; standards; systems; processes and procedures. The regulatory framework provides allowances to compensate for undertaking these activities to prevent and/or mitigate by risks.

These allowances are provided through three basic mechanisms:

1) Forecast capex;
2) Forecast opex (including external insurance); and
3) Rate of return on assets.

However, these regulatory allowances do not provide a return for *all* the risks borne by DNSPs. The regulatory framework recognises this and provides two additional mechanisms for managing risks, cost pass through and self insurance, which are aimed at addressing risks which are not compensated anywhere else in a DNSP's regulatory determination. If a risk is not addressed through: opex (including external insurance), capex, rate of return, self insurance or pass through, then it is absorbed/retained by the business.

Determining which mechanism is the most appropriate for efficiently managing a risk will depend on the nature of the risk and whether an allowance has been made for the risk through opex; capex; or rate of return.

This is because nominated pass throughs and self insurance are limited to risks which

- are not compensated by opex, capex or the rate of return;
- are exogenous (beyond the DNSP's control) and are asymmetric;
- have a low probability of occurrence or are unpredictable); and
- for which external insurance cannot be obtained or is not 'effective.'[15]

It is important to note that the use of nominated pass throughs is further constrained by the need to establish that the likely financial consequences from the risk eventuating are likely to be catastrophic. This is a distinguishing feature for determining whether a risk should be managed via a self insurance allowance or via a nominated pass through.

In other words, mitigating risks via a nominated pass through should only be used as a last option available to network service providers (NSPs) with respect to risk management relating to the cost recovery of costs associated with the provision of direct control services.[16] This is consistent with the AER and AEMC's approach towards pass throughs and will help to ensure that prices for customers are no more than necessary to provide an appropriate level of service.

Insurability

Having determined that a risk is not already addressed through the opex forecast, capex forecast, or rate of return, it is then necessary to determine whether the risk can be insured. Generally, the main way to mitigate or compensate for risk is through obtaining external insurance. From a regulatory perspective, the insurance premium is usually included as part of the opex allowance and is therefore recovered from customers.

However, not all risks can be externally insured. In some circumstances sufficient insurance may be unavailable due to a lack of capacity in the market[17], while in other cases external insurance may be available but is inefficient/and or inappropriate in light of the costs of the premium. Therefore, whether a risk can be effectively insured externally requires examining both the availability of insurance and the affordability of the insurance.

Self Insurance

If it is not possible to obtain effective external insurance for a risk, it may be possible to self insure the risk. Generally, self insurance serves to provide allowances for asymmetric risks which are not incurred in a consistent or predictable manner over time and which have not already been accounted for in the building block proposal. These can be risks which have been historically incurred, or risks that the DNSP expects to face in the future. The timing of these costs is often not known in advance, hence the DNSP 'self insures' for them.

In determining whether it is appropriate to self insure for a risk requires consideration of whether the business can 'effectively' self insured for the risk. That is, does the business have the capacity to effectively pool enough risk to cover the severity of the likely impact should the risk occur.[18]

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[15] Even if external insurance is available, it may not be 'effective' as the premium for a low probability high impact insurance policy may be so high as to make it uneconomic to insure for the risk, or the likely impact of the event is likely to be of such a nature that the insurance would be insufficient to cover all of the business' costs.

[16] AEMC 2012, Cost pass through arrangements for Network Service Providers, Rule Determination, 2 August 2012, p i. See also AER, Final Decision: ElectraNet Transmission Determination 2013-14 to 2017-18, 30 April 2013, pp 190-191.

[17] A lack of capacity in the market to insure a risk refers to where there is either insufficient people in the market to effectively pool the risk (i.e. insurance cannot be obtained to cover the impact of the risk) or where insurance companies do not want to manage the risk.

[18] For example, the risk of damages from a significant earthquake that is likely to occur less than 1 in 1,000 years. In theory, this risk can be self insured by saving an annual premium to pay for the earthquake when it occurs. However, if the event occurred prior to 1,000 years (i.e. in year 20) the business would have an insufficient pool of funds to cover the costs of the event.

Therefore, the likely magnitude of the risk will be a determining factor as to whether self insurance is an appropriate mechanism for mitigating a particular risk. Other considerations that the business should have regard to in deciding whether to self insure for risks include:

i. Whether the risk is practically quantifiable and does not merely relate to the loss of value;[19]
ii. Whether the risk is negatively asymmetric;[20]
iii. AER information requirements;[21] and
iv. Administrative and reporting requirements.[22]

Nominated pass through considerations and over and under account

The NSW DNSPs understand that this Rule change request is being considered alongside the retailer insolvency events - cost pass through provisions Rule change Rule change. Our 11 February 2015 submission supported both elements of the retailer insolvency Rule change:

- to enable cost pass through applications for retailer insolvency events to be approved by the Australian Energy Regulator (AER) without being subject to the materiality threshold that is usually applied to cost pass through events; and
- to amend the distribution cost pass through provisions in the National Electricity Rules (NER) to allow DNSPs to recoup their unrecovered revenue for direct control services that have been provided, but remain unpaid by retailers that have become insolvent.

Notwithstanding our support for the above, we would like to stress in the strongest possible terms that while DNSPs can potentially recover unpaid network charges through a retail insolvency pass through, the remedy may be a slow one due to the likely delays in DNSPs recovering these costs. Depending on when in the period a Retailer of Last Resort (ROLR) event occurs, a DNSP may have to absorb this cost (and the interest that accrues on this debt) for up to 14 months before it can undertake adjustment through its annual pricing proposal to recover the outstanding network charges. This severely constrains its usefulness as a risk mitigation tool in lieu of appropriate credit support arrangements.

Over and unders account.

The overs and unders account relates to a revenue cap control mechanism. It is itself not mandated in the Rules and can vary from regulatory period to regulatory period as determined by the Australian Energy Regulator (AER); several DNSPs were subject to a price cap in the previous regulatory period.

Under a revenue cap, a regulated business is constrained (i.e. capped) on the overall revenue it can use in one year. If actual revenue is less than allowed revenue, the DNSP can increase prices in the following years to recoup that under-recovery of revenue. Notwithstanding that any revenue shortfall would not be recovered until the following year, it is in no way a substitute for an effective credit support scheme. Linking the decision about a control mechanism and appropriate credit support is wholly inappropriate, it does nothing to mitigate against cash flow risk and the potential for wider market contagion as result of a large retailer insolvency.

[19] The probability of the event occurring is relevant for quantifying the likely impact of the event (i.e. loss times probability) as it will determine the self insurance allowance that the AER will likely approve. The AER has stated that the financial impact of the event must be able to be recorded in the building block revenue components (i.e. opex or capex) hence the mere loss of value from the event occurring would not be allowed as self insurance allowance.

[20] According to the AER, events could have upside and downside risks. Expressed in a different way this refers to whether an event is characterised by symmetrical or asymmetrical risks. Asymmetric risks can be distinguished from symmetric risks, in the sense that if an asymmetric risk occurred it would ONLY increase a DNSPs' costs whereas symmetrical risks are not always characterised by an increase in costs..

[21] The AER requested the very detailed information on 'self insurance' in the regulatory information notice (RIN) it issued to the Victorian DNSPs to substantiate their self insurance claims. Information required by the AER included details of all amounts and values used to calculate the proposed insurance; an explanation of the methodology; Board resolutions to self insure; actuary reports verifying the self insurance premiums; annual accounts recording the cost of self insurance as an operating expense.

[22] Electing to self insure for a risk means that the business must establish formal measures for pooling and managing the risk, and will also need to report the ongoing management of its self insurance via the RIN, which as noted above is onerous.

(d) Do the risks borne by gas distributors under their access arrangements (or potentially by the proposed rules) lead distributors to take actions to better manage the risk of retailer default?

No comment.

(e) Do the costs imposed on consumers by the current rules (or potentially by the proposed rules) lead consumers to make informed decisions about purchasing electricity or gas from their retailer?

No comment.

Question 5 Reducing risk of non-payment

(a) What operational decisions could retailers make to reduce the risk of their own default on payments to distributors?

Minimising the retailer's network charges liability will reduce the cash-flow risk through more frequent billing and faster transition of customers to a new retailer post default. The substitute for credit support requirement would be the requirement for increased working capital by retailers in order to pay bills more quickly; and retailers would need to balance each cost accordingly. This increase in working capital would need to be sourced at cost to the retailer.

(b) Would retailers undertake these operational decisions if the rule to manage the risk of retailer default did not impose a credit support requirement?

No comment.

Question 6 Purpose of Rule

(a) Is this the correct approach to consider the level of protection to be provided by a rule to manage the risk of retailer non-payment?

The Rule change proposal increases the Credit Allowance (CA) % from 21.95 % to 100 % for a BBB-rated retailer. Table 2 shows the effect of the Rule change proposal in terms of the upper bound impact scenarios for Ausgrid across different holding periods for billings from 5 weeks to 8 weeks. The potential risk transfer to Ausgrid illustrated by the impact of change.

Table 2: Upper Bound Impact of Shift in benchmark credit rating from A- to BBB- across CA %, and CA (The 'Effect'):

Benchmark Rating Shift	CA (%) for BBB-	CA for BBB-
5 week billings - $287,727,133		
A-	21.95%	$63,159,614
BBB-	100.00%	$287,727,133
Impact of Change	**78.05%**	**$224,567,519**
6 week billings - $345,272,560		
A-	21.95%	$75,791,537
BBB-	100.00%	$345,272,560
Impact of Change	**78.05%**	**$269,481,023**
7 week billings - $402,817,987		
A-	21.95%	$88,423,460
BBB-	100.00%	$402,817,987
Impact of Change	**78.05%**	**$314,394,527**
8 week billings - $460,363,414		
A-	21.95%	$101,055,383
BBB-	100.00%	$460,363,414
Impact of Change	**78.05%**	**$359,308,031**

We note that there is nothing in the current NER stopping a single retailer obtaining a 100 % market share in a DNSP's jurisdiction. The scenarios are considered an extreme 'Name Crisis' event for a DNSP; regardless of retailer credit rating. The only mitigant available to a DNSP is the extent of retail competition (i.e. counterparty diversification) within jurisdictions, of which the DNSP has no control over due to its obligation to serve customers. EnergyAustralia, with a BBB- rating accounts for 44.1 per cent market share in Ausgrid's distribution area.

Each DNSP is unique in terms of capital structure (i.e. leverage), target credit rating, debt covenants, dividend policy and cash-flow / liquidity constraints. As such each DNSP's *risk tolerance* will vary even though each faces contractual and regulatory obligations to serve customers. The cash-flow / liquidity requirement, coupled with the obligation to serve, create the potential for tight asset / liability mismatches over very short time-frames (i.e. weeks).

Any cash short-fall exposing the DNSP to cash-flow / liquidity risk may, in extreme cases, lead to insolvency if the DNSP does not carry sufficient committed facilities (i.e. working capital). The 'Name Crisis' scenario outlined above seeks to capture the potential for such insolvency. It will not necessarily be captured by prevailing credit ratings due to the adverse circumstances under which a 'Name Crisis' scenario may occur. Credit ratings are more concerned with a 'Going Concern' scenario and seek to capture the expected behaviour of cash-flows in the ordinary course of business over a future period. [23] 'Going concern' impacts seek to capture the potential for credit rating downgrades and the pursuant increase in the cost of capital.[24] 'Name Crisis' scenarios seek to capture the very short term impacts in comparison to 'Going Concern' scenarios.

[23] Ratings agencies look at key financial metrics in their quantitative assessments including:
- Debt / Equity,
- Funds from Operations (FFO) / Debt; and
- Interest Cover Ratio (ICR).

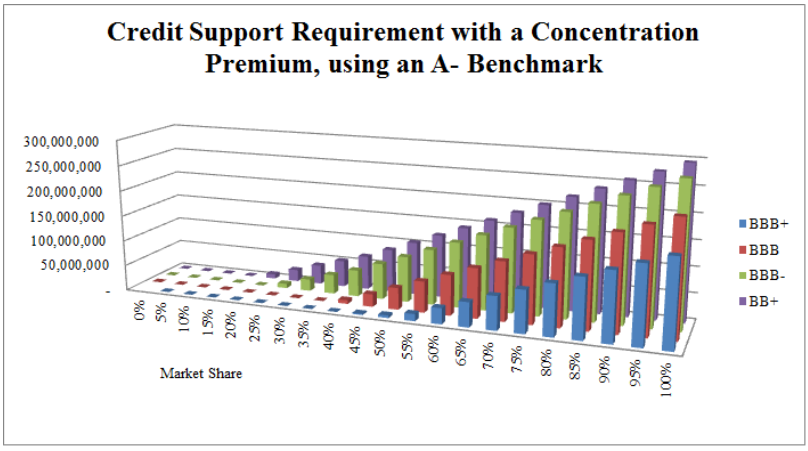
[24] The difference between the 'Name Crisis' scenario and 'going concern' scenario are explained from a banking prudential management perspective in Australia Prudential Standard 210 – Liquidity (January 2014) – para 53 and 54.

DNSPs will need to hold significantly more working capital / committed facilities to mitigate the risk transfer pursuant to the Rule change proposal.

***Single-Name* Retailer Credit Concentration**

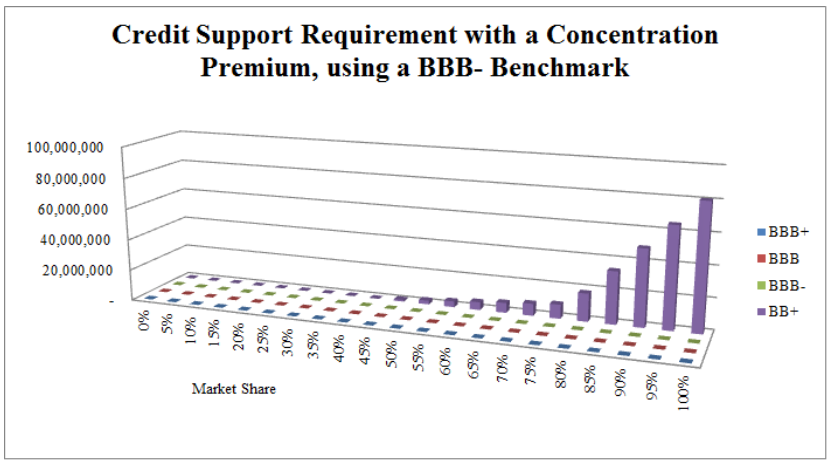
A deeper consideration of the Rule change proposal identifies a lack of *single-name credit concentration limits* within the current provisions. Some DNSPs are heavily exposed to a single retailer in respect of network charges (NC) billings (i.e. EnergyAustralia in the case of Ausgrid, Origin Energy in the case of Essential Energy and Endeavour Energy and AGL in the case of SA Power Networks). For this reason the CSR needs to capture both the credit worthiness of the retailer *and* the level of exposure (i.e. cash short-fall) over the very short-term asset / liability requirement outlined in the previous section. We introduce a Concentration Premium linked to the contribution of the retailer's market share to the cash-flow / liquidity risk of the DNSP and we call this the market share threshold. We recommend this concentration premium 'add on' should be applied to the current provisions such that the CSR captures *single name credit concentration risk* as well as the risk of default. Figure 1 illustrates the CSR requirement of the current provisions using an A- credit rating benchmark included a concentration premium:

Figure 1: CSR with a Concentration Premium across BBB+ to BB+ and market shares



By comparison Figure 2 illustrates the CSR pursuant to the proposed shift to a BBB- benchmark credit rating plus the Concentration Premium. The reduction in CSR is significant and this exemplifies the risk transfer:

Figure 2: CSR pursuant to the shift in benchmark credit rating to BBB – plus Concentration Premium across BBB+ to BB+ and market shares:



As outlined in the attached report, any retailer with a market share greater than the *Threshold Market Share* exposes the DNSP to *single name concentration risk*. As such when a retailer's market share is greater than the *Threshold Market Share* the total CSR for that retailer should include an 'add-on' *Concentration Premium* which only applies to the retailers market share above the *Threshold Market Share*.

(b) Are there any other protections provided by a rule to manage the risk of retailer non-payment?

Unrealistic Credit Allowances for Unrated retailers

In addition to the above, unrealistic credit allowances for unrated retailers in the Rules should be addressed. The CA % for *unrated* retailers in Schedule 6B.1 uses Dun and Bradstreet dynamic risk score ratings and aligns these to the CA % for other ratings agencies without undertaking the explicit CA % calculation using the Dun and Bradstreet specific dynamic risk score (i.e. implied PD) inputs. This has the effect of producing *unrealistic* CA's for unrated retailers. In some cases unrated subsidiaries that use Dun and Bradstreet risk scores, and with a rated parent, may be assigned a higher CA % than the parent. This appears a perverse outcome. The Dun and Bradstreet dynamic risk scores should be realigned with the ratings agencies in Schedule 6B.1 of NER as described in section 6 of the report.

Furthermore, to avoid doubling up of CA's, clauses 6B.B3.3 and 6B.B3.4 should be clarified to explicitly state that only the retailer's corporate credit rating is to be used for calculating the credit allowances for entities/FRMPs within the group. While we consider that for the purpose of calculating credit support under Chapter 6B of the Rules, the NSW DNSPs should regard retailers with parent and FRMPs to be the one retailer and take into account the total network charges which the retailer pays the DNSP in arrears in accordance with a statement of charges under clause 6B.A2.4, the Rules could be clearer in this regard.

Question 7 Changes in the calculated amount of credit support required

(a) How often do retailer-distributor credit support requirements currently change?

The NSW DNSPs are strongly in favour of a credit support calculation that is based on the credit worthiness of the retailer and the level of exposure to that entity rather than based on the DNSP's annual revenue.

The NSW DNSPs have requested credit support from retailers in accordance with the Rules. However their success in obtaining credit support has varied due to the ambiguity in the current Rules.

(b) What would be market participants' preferred frequency of changes to the required level of credit support provided by retailers to distributors?

No comment.

(c) How do frequent changes in credit support requirements affect retailers?

No comment.

(d) How could other approaches to a rule for managing the risk of retailer default improve regulatory certainty or flexibility?

No comment.

Question 8 Barriers to Entry

(a) Are credit support requirements a barrier to entry or expansion for small retailers?

As noted in our response to Question 2 (a) we do not support the principle that 'the rule takes into account the impact on barriers to entry to retail business'.

This is because credit support is not a means for encouraging competition; it is a tool to manage credit risk exposure acknowledged to exist between market participants and to do so within set Rules. Instead, we consider that a principle should be added which examines credit support in the context of the roles and responsibilities of retailers and DNSPs.

(b) What control do small retailers have over their credit support costs when entering the market?

Not relevant to the Rule change, see comment above.

(c) Would other ways of reducing a retailer's liability reduce the barriers to entry or expansion faced by small retailers?

Not relevant to the Rule change, see comment above.

Question 9 Balance of credit risk and impact risk

(a) Is AGL's proposal an improvement over the current credit support requirements?

The NSW DNSPs do not support the AGL Rule change as it removes the Maximum Credit Allowance (MCA) which means retailers have an unlimited credit with DNSPs regardless of market share; it lowers the probability of default benchmark from A- to BBB- which increases the DNSP's risk tolerance, shifting the risk from retailers to DNSPs.

Under the Rule change request the risk tolerance settings for DNSPs is greater as the Credit Allowance (CA) increases and the Credit Support Required (CSR) decreases for retailers. This exposes DNSPs to the increased potential of short-term cash flow / liquidity risk pursuant to retailer default. This occurs because the benchmark credit rating for the setting of CAs shifts from the current probability of default (POD) A- benchmark to a BBB- benchmark (a bare investment grade rating); effectively transferring risk to DNSPs as described in the circled sections of the table below.

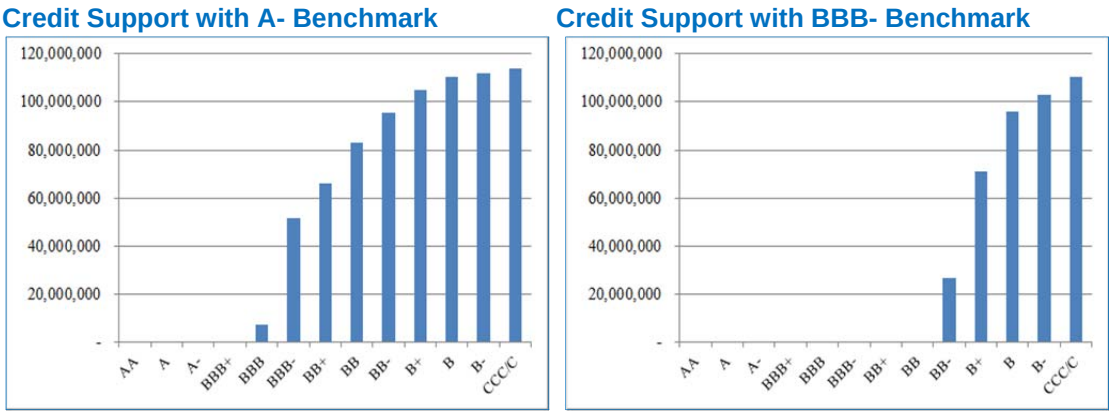
Table 1: Increase in CA (%) pursuant to the rule change request (The 'Cause'):

Rating	PD	CA (%) A-	CA (%) BBB+	CA (%) BBB	CA(%) BBB-
AA	0.02	100.00%	100.00%	100.00%	100.00%
A	0.09	100.00%	100.00%	100.00%	100.00%
A-	0.09	100.00%	100.00%	100.00%	100.00%
BBB+	0.17	52.94%	100.00%	100.00%	100.00%
BBB	0.24	37.50%	70.83%	100.00%	100.00%
BBB-	0.41	21.95%	41.46%	58.54%	100.00%
BB+	0.53	16.98%	32.08%	45.28%	77.36%
BB	0.82	10.98%	20.73%	29.27%	50.00%
BB-	1.34	6.72%	12.69%	17.91%	30.60%
B+	2.7	3.33%	6.30%	8.89%	15.19%
B	6.26	1.44%	2.72%	3.83%	6.55%
B-	9.86	0.91%	1.72%	2.43%	4.16%
CCC/C	27.98	0.32%	0.61%	0.86%	1.47%

As a result of risk shifting the NSW DNSPs will not be entitled to obtain credit support to mitigate their large risk exposures to a single retailer. DNSPs are highly exposed to 'single name' concentration risks to retailer in their network area.

For example, the dominant retailer in Ausgrid's network area rated BBB- (bare investment grade rating), accounts for over 40 percent market share and is the greatest singular risk to the DNSP.

Graph 1: Impact of the rule change on Ausgrid's credit support amount on shifting the benchmark from A- to BBB- for a 40% market share retailer.



The Rule change proposed would effectively remove the sole measure a DNSP presently has to manage its risks to the dominant player in its network area.

Given potential timing lags between a 'name crisis' event and a credit downgrade it is arguably too late to collect credit support following a downgrade to the sub-investment ratings i.e. BB+ or lower.

Moreover, failure of the dominate retailer would severely constrain our cash flow, compel us to seek emergency funding to fulfil our financial obligations, disrupt the market during the Retailer of Last Resort (ROLR) event and process, and result in the inequity of all customers of the DNSP bearing the costs via an approved pass through event and with consequent delays, not to mention the risk of broader financial contagion.

(b) Given your answer to a), explain why or why not.

We believe that neither the AGL Rule change nor current credit support provisions achieve an appropriate outcome. Instead, we recommend a straight forward credit support calculation that is based on the credit worthiness of the retailer and the level of exposure to that entity rather than based on the DNSP's annual revenue (which is currently used as the basis for credit support calculations). In our attached report (Attachment C) we provide evidence of the risk shifting from the current A- benchmark rating to a BBB- benchmark rating and the impacts on DNSPs. Probability of Default benchmark should remain at A- (and not reduced to BBB-) to avoid risk shifting/ transferring risks from retailers to DNSPs.

Our review also takes into consideration the deficiencies in the current credit support framework and the Rules, in particular:

- There is no consideration of industry concentration measures to capture single name retailer concentration risk in the Rules. We discuss the potential for a concentration risk premium to be considered as an option in the Rules.
- The Rules facilitate unrealistic credited allowances for unrated retailers through the use of Dun and Bradstreet dynamic (D&B) risk scores. Accordingly we propose that the Rules realign the PD to Standard & Poor's/ Fitch/ Moody's probability of default[25]. Further, the Rules should be explicit that Credit Allowances must be at parent entity level and must be apportioned between entities/ FRMPs within a retailer group, so that retailers can no longer receive multiple credit allowances.

[25] The current Rules refer Table in Schedule 6B.1 (Clause 6B.B3.1) misalign the probability of default of D&B to S&P's and as a result give unrated retailers unrealistic credit allowances. The proposed changes, if implemented, would mean there would be no credit support requirements for retailer's rated BBB- and above. This is a significant change to the current DNSP *risk appetite* settings as they appear in Schedule 6B.1 of the NER.

We believe that by addressing these issues, it will provide DNSPs with appropriate levels of credit support across the entire portfolio of retailers, namely high value/ low risk of default (in particular) and low value/ high risk of default and thereby provide greater protection to market participants of a large retail failure.

Question 10 Recovery through the regulatory determination process

(a) What are the advantages of the regulatory determination process in terms of recovering revenue related to managing the risks associated with retailer default?

We are concerned that the AEMC believes that there are alternative avenues for DNSPs to recover costs associated with a retailer failure which provide a degree of certainty around future cost recovery and should assist DNSPs to raise finance for any temporary cash flow shortfalls.

These include 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 or a retailer insolvency pass through event. However, in our response to question 4 (c) as well in previous submissions to the NEM financial resilience review we have provided reasons why these mechanisms are not appropriate[26].

(b) How does this mechanism compare to other alternatives available to distributors and/or retailers to manage risks associated with retailer default?

The consultation paper does not reflect how the various mechanisms in the Rules aimed at assisting a DNSP mitigate its exposure to the risk posed from a retailer defaulting (i.e. credit support, cost pass through and insurance) interact with one another.

The consultation paper questions seem to imply that credit support may not be needed as DNSP's can mitigate their exposure to retailer's defaulting through a self-insurance or insurance allowance or via a cost pass through. This is not the case, in our response to the Question 4 (c) we set out how the various mechanisms interact with one another, and assess this against first principles in terms of who is the most appropriate party to bear the risk.

While DNSP's may be able to recover costs from a retailer failing via the cost pass through mechanism but this mechanism in itself has its failings/drawbacks, particularly the timing of when costs can be recovered as well as adverse impacts on cash flow.

Question 11 Recovery through the cost pass-through mechanism

(a) What are the advantages of the cost-pass through mechanism in managing the risks associated with retailer default?

DNSPs support the cost pass through mechanism to enable cost pass through applications for retailer insolvency events to be approved by the Australian Energy Regulator (AER) without being subject to the materiality threshold that is usually applied to cost pass through events. We also support amending the distribution cost pass through provisions in the National Electricity Rules (NER) to allow DNSPs to recoup their unrecovered revenue for direct control services that have been provided, but remain unpaid by retailers that have become insolvent. However as noted in the submission, the cost pass through mechanism is not a replacement for credit support. The most effective way of mitigating the potential credit and cash flow impacts from a retailer failure is through having effective credit support arrangements that can be enforced.

[26] NSW DNSPs response to the National Electricity Amendment (Retailer insolvency events – cost pass through provisions) Rule 2015 Consultation Paper.

(b) How does this mechanism compare to other alternatives available to distributors and/or retailers to manage risks associated with retailer default?

As noted in response to Question (4) (c) while DNSPs can potentially recover unpaid network charges through a retail insolvency pass through, the remedy may be a slow one due to the likely delays in DNSPs recovering these costs. Depending on when in the period a Retailer of Last Resort (RoLR) event occurs, a DNSP may have to absorb this cost (and the interest that accrues on this debt) for up to 14 months before it can undertake adjustment through its annual pricing proposal to recover the outstanding network charges. This severely constrains its usefulness as a risk mitigation tool in lieu of appropriate credit support arrangements.

Question 12 Recovery through the corporate insolvency process

(a) What role does the corporate insolvency process play in providing a sufficiently effective and transparent means of managing retailer default?

It plays no practical role. Recovery of debts from an insolvent retailer through the insolvency process under the *Corporations Act 2001 (Cth)* would be uncertain in terms of timing and the likelihood of recovery of debts.

(b) How does this mechanism compare to other alternatives available to distributors and/or retailers to manage risks associated with retailer default?

The limitations that DNSP may face in enforcing compliance with credit support provisions will be influenced significantly by the basis for the retailer's failure to comply. In circumstances where there has not been a ROLR event, the limitations faced by a DNSP under the corporate insolvency process include:

- A claim for loss or damage can only be made in circumstances where the DNSP has suffered actual loss or damage – there mere likelihood of loss or damage (e.g. future unpaid network charges) will not be sufficient to justify a claim for loss or damages;

- Unless the DNSP has grounds to justify an urgent application, the Supreme Court processes from application to hearing and decision are likely to be lengthy such that seeking an order from the Supreme Court is not lilely to result in immediate recovery for the DNSP.

In the event of a retailer failure, the key limitation on the DNSP's ability to take enforcement action for breaches of conduct provisions is the interrelationship between the conduct provisions and ROLR arrangements. These regulatory arrangements while interrelated are not integrated. At best they enable the DNSP to exhaust all avenues for recovery of unpaid credit support. At worst, the exercise of one option may have the effect of precluding the DNSP from successfully adopting another course of action.

In addition, the dual recovery streams (of corporate insolvency and pass through) may not prove efficeint as a DNSPwill not be able to recover all its costs by one application in one forum. Instead, a DNSP may need to submit a cost pass through application to the AER for unpaid network charges and separate application by the Court to recover any costs incurred, while also awaiting the results of insolvency proceedings.

Question 13 Management of risk through the minimisation of network charges liability

(a) What are the advantages of mechanisms to minimise a retailer's network charges liability in managing the risk of retailer default?

A shortcoming of any proposal where there is mechanism to minimise a retailer's network charges is that DNSPs must continue to supply electricity regardless of whether the retailer has paid its network charges. DNSPs do not typically have large cash flow contingencies, once network charges start approaching $170 million, Ausgrid would have insufficient funds to meet its commitments and would need to borrow extra funds after the retailer has reach five weeks in arrears.

Furthermore as the retailer would accrue close two months in outstanding network charges before a ROLR event is declared, the outstanding network charges could be significant.
Relying on shareholders to fund this shortfall is not consistent with providing signals to invest in the network and therefore is not consistent with the NEO and is not in the long term interests of consumers.

(b) How do these mechanisms compare to other alternatives available to distributors and/or retailers to manage risks associated with retailer default?

No comment.

(c) Are there any practical considerations of developing and implementing mechanisms to minimise a retailer's network charges liability? If so, what are these considerations?

Yes, the current operation of clause *6B.A3.3 Disputed statements of charges* has created some practical issues for the NSW DNSPs. This is because we have instances where one large retailer disputes on a regular basis and in large numbers for elements of Network Use of System Charges (NUOS) that represent very small amounts of the total charge. In NSW, the DNSPs issue invoices to retailers where the invoice relates to one NMI. The invoice will be made up of line items covering the Network Access Charge (NAC) and the consumption charges, be they inclining block or Time of Use (TOU) plus a capacity charge for certain tariffs and controlled load where controlled load is present at the site. Certain retailers will target a particular element of our charging methodology then codify their reconciliation engine, which then automatically dispute our charges.

In NSW, to date one retailer has never adhered to the rules requiring minimum payment as per clause 6B.A3.3 where the retailer must pay the DNSP the greater of the undisputed component of the statement of charges, or 80% of the total amount due under the disputed statement of charge. The problem this presents in conjunction with the rule change proposal is that our ability to enforce the Rules and recover what is due will rest solely or at least heavily on the NERL centring around timely payment, i.e. within the 10 working days of invoice issuance

In any case, the 10 day and minimum payment Rules must be suitably strong enough or have suitable backup when payment waivers that our cash flow is maintained or protected.

Question 14 Relationship between mechanisms to manage the risk of retailer default

(a) How do the various mechanisms available to manage the risk of retailer default work to complement each other in ensuring that the risk of retailer default is managed in the most efficient manner?

Our submission (including the answers the above questions) details why the various risk management mechanisms in the rules do not mitigate against the need for an effect credit support regime to manage the risk of retailer default.

(b) How should these different mechanisms be combined in a regime to manage the risk of retailer default to ensure an efficient outcome?

Our submission highlights a number of deficiencies in the current credit support framework and the Rules that could be addressed in a more effect credit support rule:

- the inadequacy of industry concentration measures to capture single name retailer concentration risk and the potential for a concentration risk premium to be considered as an option in the rules.
- the unrealistic credited allowances for unrated retailers through the use of Dun and Bradstreet dynamic (D&B) risk scores. Accordingly we propose that the Rules realign probability of default (PD) to Standard & Poor's/ Fitch/ Moody's probability of default[27]. Further, Credit Allowances must be at parent entity level and must be apportioned between entities/ FRMPs within a retailer group, so that retailers can no longer receive multiple credit allowances.

[27] The current Rules refer Table in Schedule 6B.1 (Clause 6B.B3.1) misalign the probability of default of D&B to S&P's and as a result give unrated retailers unrealistic credit allowances.

Networks New South Wales
Impacts of Credit Support Rule Change Request

1 July 2015

Executive Summary

Introduction

Networks New South Wales (NNSW) has developed scenarios capturing the potential impacts of the proposed Credit Support Rule Change Request ('rule change request') submitted to the Australian Energy Market Commission (AEMC) by the rule change proponent.[1] The rule change request: '*Re-calibrating risk under retailer/distributor credit support provisions',* is intended as an alternative to the current credit support requirement (CSR) calculation as articulated in Chapter 6B of the National Energy Rules (NER) and Part 21 of the National Gas Rules (NGR) in relation to the retail support obligations between distributors and retailers.[2]

The rule change request, if implemented, will effectively provide an unlimited credit allowance (CA) (i.e. unsecured credit) to BBB- rated retailers and above for their outstanding Network Charges (NCs) billings collected from customers by retailers on behalf of Distribution Network Service Providers (DNSPs).[3] This creates a corresponding decrease in retailer CSR provided to DNSPs to mitigate for the potential loss pursuant to retailer default.

Risk Shifting / Risk Transfer to DNSP: Move from A- to BBB- Benchmark

Under the rule change request the risk tolerance settings for DNSPs is greater as the CA increases and the CSR decreases for retailers. This exposes DNSPs to the increased potential of short-term cash flow / liquidity risk pursuant to retailer default. This occurs because the benchmark credit rating for the setting of CAs shifts from the current A- benchmark to a BBB- benchmark; effectively transferring risk to DNSPs as described in the circled sections of Table 1:

Table 1: Increase in CA (%) pursuant to the rule change request (The 'Cause'):

Rating	PD	CA (%) A-	CA (%) BBB+	CA (%) BBB	CA(%) BBB-
AA	0.02	100.00%	100.00%	100.00%	100.00%
A	0.09	100.00%	100.00%	100.00%	100.00%
A-	0.09	100.00%	100.00%	100.00%	100.00%

[1] '*Re-calibrating risk under the Retailer-Distributor Credit Support Provisions'*, Rule change request 9 January 2015.

[2] Part 21 of the NGR mirrors the provisions of Chapter 6B of the NER, and as such, the focus is solely on Chapter 6B only and it is assumed the impacts are consistent across the NER and NGR. CSR is a term introduced by the rule change proponent. The actual terminology in the rules is '*required credit support amount'* which is the amount by which the network charges liability exceeds the credit allowance of the retailer (see 6B.B1.2). CSR is used in this report.

[3] NCs are defined in the rules as follows: '*network charges'* means charges that a DNSP is entitled to claim for customer connection services in respect of shared customers under these Rules. (page 901 of NER).

BBB+	0.17	52.94%	100.00%	100.00%	100.00%
BBB	0.24	37.50%	70.83%	100.00%	100.00%
BBB-	0.41	21.95%	41.46%	58.54%	100.00%
BB+	0.53	16.98%	32.08%	45.28%	77.36%
BB	0.82	10.98%	20.73%	29.27%	50.00%
BB-	1.34	6.72%	12.69%	17.91%	30.60%
B+	2.7	3.33%	6.30%	8.89%	15.19%
B	6.26	1.44%	2.72%	3.83%	6.55%
B-	9.86	0.91%	1.72%	2.43%	4.16%
CCC/C	27.98	0.32%	0.61%	0.86%	1.47%

The rule change request increases the CA % from 21.95 % to 100 % for a BBB- rated retailer.

Table 2 shows the effect of the rule change request in terms of the upper bound impact scenarios for Ausgrid across different holding periods for billings from 5 weeks to 8 weeks. The risk transfer is illustrated by the impact of the change:

Table 2: Upper Bound Impact of Shift in benchmark credit rating from A- to BBB- across CA % and (The 'Effect'):

Benchmark Rating Shift	CA (%) for BBB-	CA for BBB-
5 week billings $287,727,133		
A-	21.95%	$63,159,614
BBB-	100.00%	$287,727,133
Impact of Change	**78.05%**	**$224,567,519**
6 week billings $345,272,560		
A-	21.95%	$75,791,537
BBB-	100.00%	$345,272,560
Impact of Change	**78.05%**	**$269,481,023**
7 week billings $402,817,987		
A-	21.95%	$88,423,460
BBB-	100.00%	$402,817,987
Impact of Change	**78.05%**	**$314,394,527**
8 week billings $460,363,414		
A-	21.95%	$101,055,383
BBB-	100.00%	$460,363,414
Impact of Change	**78.05%**	**$359,308,031**

In a nutshell:

- The CA % increases by 78.05 % for BBB- rated retailers (see also Table 1); and
- The CA for BBB- rated retailers (in dollar terms) increases to a range of $225m and $360m (assuming the retailer has 100 % market share in Ausgrids jurisdiction);

The scenarios capture the upper bound impact of the rule change request. To this end, there is nothing in the current NER stopping a single retailer obtaining a 100 % market share of a DNSP's jurisdiction. The scenarios are considered an extreme 'Name Crisis' event for a DNSP; regardless of retailer credit rating. The only mitigant available to a DNSP is the extent of retail competition (i.e. counterparty diversification) within jurisdictions, of which the DNSP has no control over due to its obligation to serve customers. EnergyAustralia, at a BBB- rating represents 44.1 per cent jurisdictional market share of Ausgrid's current exposure.

Each DNSP is unique in terms of capital structure (i.e. leverage), target credit rating, debt covenants, dividend policy and cash-flow / liquidity constraints. As such each DNSPs *risk tolerance* will vary even though each faces contractual and regulatory obligations to serve customers. The cash-flow / liquidity requirement, coupled with the obligation to serve, create the potential for tight asset / liability mismatches over very short time-frames (i.e. weeks).

Any cash short-fall exposing the DNSP to cash-flow / liquidity risk may, in extreme cases, lead to insolvency if the DNSP does not carry sufficient committed facilities (i.e. working capital). The 'Name Crisis' scenario outlined above seeks to capture the potential for such insolvency. It will not necessarily be captured by prevailing credit ratings due to the adverse circumstances under which a 'Name Crisis' scenario may occur. Credit ratings are more concerned with a 'Going Concern' scenario and seek to capture the expected behaviour of cash-flows in the ordinary course of business over a future period. [4] 'Going concern' impacts seek to capture the potential for credit rating downgrades and the pursuant increase in the cost of capital.[5] 'Name Crisis' scenarios seek to capture the very short term impacts in comparison to 'Going Concern' scenarios.

DNSPs will need to hold significantly more working capital / committed facilities to mitigate the risk transfer pursuant to the rule change request. Furthermore there is an inherent need to address the B2B rules as these are weak in protecting DNSPs from retailers potential for managing working capital issues via disputing invoices; as this further increases risk and therefore DNSP working capital requirements.

Retail credit concentration risk is discussed next.

Single-Name Retailer Credit Concentration

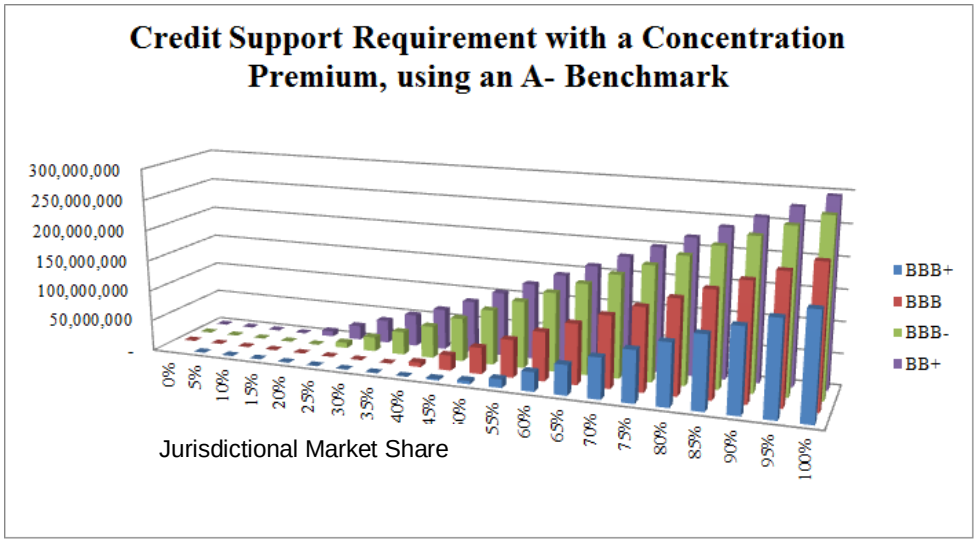
A deeper consideration of the rule change request identifies a lack of *single-name credit concentration limits* within the current provisions. Some DNSPs are heavily exposed to a single retailer in respect of NCs billings (i.e. EnergyAustralia in the case of Ausgrid and AGL in the case of SA Power Networks). For this reason the CSR needs to capture both the credit worthiness of the retailer *and* the level of exposure (i.e. cash short-fall) over the very short-term asset / liability requirement outlined in the previous section. We introduce a Concentration Premium linked to the contribution of the retailer's market share to the cash-flow / liquidity risk of the DNSP and we call this the market share threshold. We recommend this concentration premium 'add on' should be applied to the current provisions such that the CSR captures *single name credit concentration risk* as well as the risk of default. Figure 1 illustrates the CSR requirement of the current provisions using an A- credit rating benchmark included a concentration premium:

[4] Ratings agencies look at key financial metrics in their quantitative assessments including:

- Debt / Equity,
- Funds from Operations (FFO) / Debt; and
- Interest Cover Ratio (ICR).

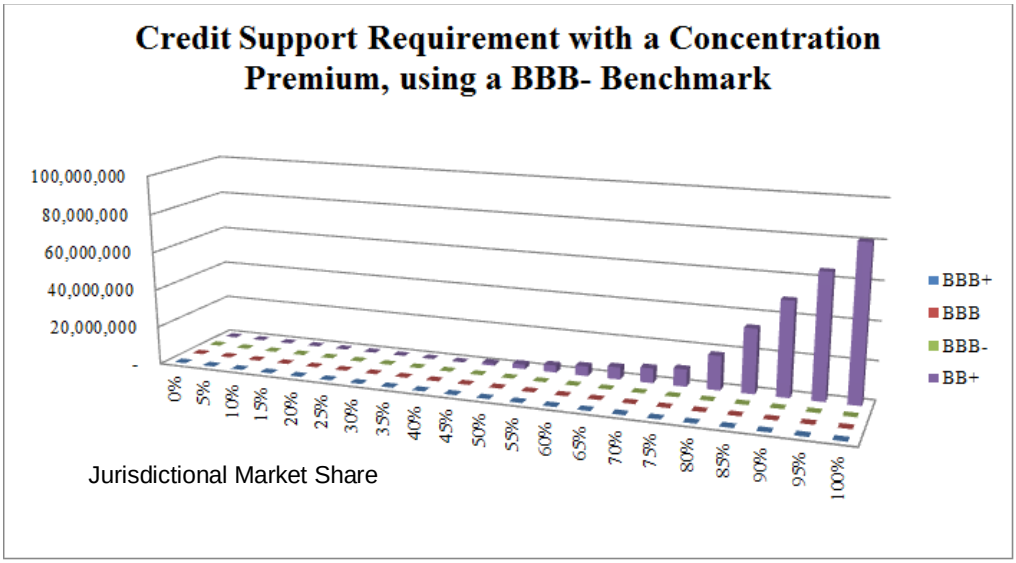
[5] The difference between the 'Name Crisis' scenario and 'going concern' scenario are explained from a banking prudential management perspective in Australia Prudential Standard 210 – Liquidity (January 2014) – para 53 and 54.

Figure 1: CSR with a Concentration Premium across BBB+ to BB+ and market shares



By comparison Figure 2 illustrates the CSR pursuant to the shift to the proposed shift to a BBB- benchmark credit rating plus the Concentration Premium. The reduction in CSR is significant and this exemplifies the risk transfer:

Figure 2: CSR pursuant to the shift in benchmark credit rating to BBB – plus Concentration Premium across BBB+ to BB+ and market shares:



Unrealistic Credit Allowances for Unrated retailers

The CA % for *unrated* retailers in Schedule 6B.1 uses Dun and Bradstreet dynamic risk score ratings and aligns these to the CA % for other ratings agencies without undertaking the explicit CA % calculation using the Dun and Bradstreet specific dynamic risk score (i.e. implied PD) inputs. This has the effect of producing *unrealistic* CA's for unrated retailers. In some cases unrated subsidiaries that use Dun and Bradstreet risk scores, and with a rated parent, may be assigned a higher CA % than the parent. This appears a perverse outcome. The Dun and Bradstreet dynamic risk scores should be realigned with the ratings agencies in Schedule 6B.1 of NER as described in section 6 of the report.

Furthermore, to avoid doubling up of CA's, clauses 6B.B3.3 and 6B.B3.4 do not explicitly state that only the retailer's corporate credit rating is to be used for calculating the credit allowances for entities / FRMPs within the group. The current arrangements create an issue for Endeavour Energy and Essential Energy whereby certain retailers are provided with a higher CA when this should be not be the case. An amendment to the definition of a retailer (to include its FRMP's) should clarify this ambiguity.

AEMC Consultation Paper – 28 May 2015

On 28 May 2015 the AEMC released its Consultation Paper: *'National Electricity Amendment (Retailer-Distributor Credit Support Requirements) Rule 2015, National Gas Amendment (Retailer – Distributor Credit Support Requirements) Rule 2015 – Rule Proponent AGL.'*

The paper canvasses a broad range of regulatory and financial risk management issues associated with the rule change request. The rule change proponent suggests the AEMC assess the rule change request against the National Electricity Objective (NEO) and the National Gas Objective (NGO) and that the rule change request will achieve the following:[6]

- Promote efficient investment in the electricity and gas markets by freeing up capital that is currently inefficiently tied up servicing poorly targeted policy objectives;

The following table summarises the key aspects of the AEMCs consultation paper and presents initial responses to it:

[6] Page 10 of AEMC consultation paper.

	Key Aspect	Response
1.	Promote efficient investment in the electricity and gas markets by freeing up capital currently inefficiently tied up servicing poorly targeted policy objectives.	It is difficult to quantify any positive societal benefits associated with freeing up capital for a retailer to invest by transferring risk to the DNSP. Under this interpretation DNSP's (and therefore customers) would be allocating capital to retailer investments of between $250m to $450m[7]. This would not provide the necessary incentives for retailers to maintain an appropriate capital structure for their investment opportunities.
2.	Consideration of both the risk of retailer default and the impact of default.[8]	It is reasonable for the AEMC to consider both these risks: 'A prudent and efficient network business may also have an aversion to any cascading risk from a large retailer default. A distributor that has a large portion of its revenues from a single retailer may face a cascading risk that if the large retailer were to default, any delay or inability to recover revenue might risk the network business also defaulting on other payments. This could be a substantial risk for distributors such that there could be additional costs in order to avoid the cascading risk of the distributor defaulting on payments in the event of a large retailer default as raised in the AEMC's NER financial market resilience review.' Overall, an effective rule to manage the risk of retailer default should consider protection for the distributor against the risk of retailer default: • In proportion to each retailer's share of a distributor's revenue; and • Adjusted for any additional cascading risk from a large retailer default. This approach is consistent with *single-name retailer concentration risk*. It is noted that the cost of a ROLA event is passed onto customers.
3.	Principles to guide the development and assessment of an effective rule for managing the risk of retailer default:[9] 1. The rule allocates appropriate risks to the parties that have the information, ability and incentives to best manage each risk in order to minimise the long-term costs to consumers; 2. The rule takes into account the risk of retailer default and the impact of default; 3. The rule takes into account the trade-off between flexibility and regulatory certainty; 4. The rule takes into account the impact on barriers to entry for retail business; and 5. The rule takes into account the impact on customers from changes in network revenue as a result of the revenue and pricing principles.	From a first principles perspective Chapter 6B of the NER outlines the credit limit setting framework for a DNSP. This eliminates principles 3 and 4 as regulatory and competition policy objectives which are best achieved through other instruments, not credit risk objectives. We have outlined how principle 2 is addressed with the Concentration Premium 'add-on' to capture single name retailer concentration risk. What remains is to explain the transfer of cash-flow / liquidity risk to DNSPs pursuant to the rule change request in light of principles 1 and 5. They are opposites of the same coin: retailers are best placed to decide on risk adjusted returns of their investments (principle 1) and are DNSP customers able to, and should they, fund single retailer investments (principle 5)? Will efficient investment incentives prevail from a transfer of risk to DNSP and its customers? As the current divestment behaviour of the proponent demonstrates, DNSPs customers would not be served well if such investment opportunities were to be taken up. As such retailers are best served to manage their own credit risk and cash-flow liquidity risk (i.e. working capital) in line with their own risk appetite and to align their incentives with their own target credit ratings to ensure efficient investment incentives are maintained. DNSPs should not fund retailer investments as this is not their purpose given their obligation to serve.
4.	Alternative mechanisms to address the risk of retailer default including:[10]	The three recovery mechanisms outlined to the left will not alleviate the potential cash shortfall risk faced by DNSPs and as such are not considered

[7] Ibid Page 10.

[8] Ibid page 18.

[9] Ibid page 14.

[10] Ibid page 27.

• Recovery through the regulatory determination process; • Recovery through the cost pass-through mechanism; • Recovery through the corporate insolvency process; and • Minimising a retailer's network charges liability.	substitutes for CSR. Minimising the retailer's network charges liability will obviously reduce the cash-flow risk through more frequent billing and faster transition of customers to a new retailer post default. The substitute for CSR would be the requirement for increased working capital by retailers in order to pay bills faster; and retailers would need to balance each cost accordingly. This increase in working capital would need to be sourced from somewhere at cost to the retailer. Furthermore there is an inherent need to address the B2B rules as these are weak in protecting DNSPs from retailers potential for managing working capital issues via disputing invoices; as this further increases risk and therefore DNSP working capital requirements.

1 Introduction

Networks New South Wales (NNSW) has developed scenarios capturing the potential impacts of the proposed Credit Support Rule Change Request ('rule change request') submitted to the Australian Energy Market Commission (AEMC) by the rule change proponent.[11] The rule change request: '*Re-calibrating risk under retailer/distributor credit support provisions',* is intended as an alternative to the current credit support requirement (CSR) calculation as articulated in Chapter 6B of the National Energy Rules (NER) and Part 21 of the National Gas Rules (NGR) in relation to the retail support obligations between distributors and retailers.[12]

The rule change request, if implemented, will effectively provide an unlimited credit allowance (CA) (i.e. unsecured credit) to BBB- rated retailers and above for their outstanding Network Charges (NCs) billings collected from customers by retailers on behalf of Distribution Network Service Providers (DNSPs).[13] This creates a corresponding decrease in retailer CSR provided to DNSPs to mitigate for the potential loss pursuant to retailer default.

A deeper consideration of the rule change request has identified the absence of *single-name credit concentration limits* within the current provisions of the NEM rules. Some DNSPs are heavily exposed a single retailer in respect of billings / trade receivables (i.e. EnergyAustralia in the case of Ausgrid and AGL in the case of SA Power Networks). For this reason the CSR needs to capture both the credit worthiness of the retailer *and* the level of exposure (i.e. cash short-fall) over the short-term asset / liability requirement outlined in the previous section. The Concentration Premium should be linked to the contribution of the retailer's market share to the cash-flow / liquidity risk of the DNSP; and hence a market share threshold.

This report summarises the work undertaken by NNSW on the impacts of the rule change request to Chapter 6B of the NER and related issues identified above. The long history and retail competition policy lens used in the proposal and submissions to date appears to cloud the core credit risk limit setting purpose of Chapter 6B.[14] For this reason a first principles approach to credit risk management is used throughout the report to capture the full impact on DNSPs.

2 Background

Existing Credit Support Provisions in the NER

Division 3 of Chapter 6B of the NER covers the calculation of the retailer *credit allowance* (CA). A CA is calculated for each retailer based on a *maximum credit allowance* (MCA) and a *credit allowance percentage* (CA %) as follows:

$$CA = MCA * CA\%.$$

The MCA is as fixed percentage of the DNSPs *total annual retailer charges* (TARC). The MCA is currently set to 25%:

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[11] '*Re-calibrating risk under the Retailer-Distributor Credit Support Provisions'*, Rule change request 9 January 2015 by AGL

[12] Part 21 of the NGR mirrors the provisions of Chapter 6B of the NER, and as such, the focus is solely on Chapter 6B only and it is assumed the impacts are consistent across the NER and NGR. CSR is a term introduced by the rule change proponent. The actual terminology in the rules is '*required credit support amount'* which is the amount by which the network charges liability exceeds the credit allowance of the retailer (see 6B.B1.2). CSR is used in this report.

[13] NCs are defined in the rules as follows: '*network charges'* means charges that a DNSP is entitled to claim for customer connection services in respect of shared customers under these Rules. (page 901 of NER).

[14] 'Distribution credit support regime in the NECF':A REPORT PREPARED FOR AGL ENERGY, ORIGIN ENERGY AND ENERGY AUSTRALIA by Frontier Economics and SFG; April 2014.

*MCA = TARC * 25%;*

The CA % of the MCA for each retailer is dependent on the retailer's credit rating as described in Schedule 6B.1 of the NER shown below (far right column):

Standard and Poor's / Fitch Rating	Moody's Rating	Dun and Bradstreet dynamic risk score	*Credit allowance* (% of Maximum)
AAA	Aaa		100.0%
AA+, AA, AA-	Aa1, Aa2, Aa3	Minimal	100.0%
A+, A, A-	A1, A2, A3	Very Low	100.0%
BBB+	Baa1	Low	52.9%
BBB	Baa2	Average	37.5%
BBB-	Baa3		22.0%
BB+	Ba1		17.0%
BB	Ba2	Moderate	11.0%
BB-	Ba3	High	6.7%
B+	B1	Very High	3.3%
B	B2		1.4%
B-	B3	Severe	0.9%
CCC/CC	Caa, Ca, C		0.3%

For example EnergyAustralia and Origin are both currently rated BBB-. Therefore both are allocated a CA % of 22.0% of the MCA. AGL is rated higher at BBB and is therefore allocated a slightly higher CA % of 37.5% of the MCA.[15]

The CA % in Schedule 6B.1 is set for each *rated* retailer using the A- S&P / Fitch benchmark credit rating (far left column). In the case of the CA % for BBB- rated retailers (i.e. EnergyAustralia and Origin) the CA % of 22% is determined as follows:

$$CA\ \% = \frac{PD\ (A-)}{PD(BBB-)}$$

where *PD (A-)* and *PD (BBB-)* are 1-year probability of default rates sourced from S&P for the A- benchmark and BBB- retailer rating respectively. The following table (third column from left with PDs circled) provides the source of PDs (originally sourced from S&P):[16]

[15] Given a TARC of $3B the MCA equates to 0.25 * $3B or $750M. For EnergyAustralia (BBB-) and Origin (BBB-) who receive a CA % of 22 % this equates to a CA of $750M * 22 % or $165M. AGL's CA equates to $750M * 37.5 % or approx. $281M for a BBB rated retailer.

Table 2: Credit allowances for firms by credit rating

S&P rating	Probability of default (2006)	Probability of default (2010)	Credit Allowance (% of MCA)		
			Victorian parameters	Corrected: 2006 data	Corrected: 2010 data
AA	0.00	0.02	100.0%	100.0%	100.0%
A	0.04	0.09	100.0%	100.0%	100.0%
A-	0.12	0.09	100.0%	100.0%	100.0%
BBB+	0.20	0.17	90.0%	60.0%	52.9%
BBB	0.30	0.24	72.0%	40.0%	37.5%
BBB-	0.40	0.41	48.0%	30.0%	22.0%
BB+	0.60	0.53	13.0%	20.0%	17.0%
BB	1.00	0.82	7.0%	12.0%	11.0%
BB-	1.80	1.34	4.0%	6.7%	6.7%
B+	3.00	2.70	2.0%	4.0%	3.3%
B	8.35	6.26	1.1%	1.4%	1.4%
B-	12.20	9.86	0.4%	1.0%	0.9%
CCC to CC	28.80	27.98	0.1%	0.4%	0.3%

By illustration, 0.09 divided by 0.41 equates to 22 % which reconciles with the CA % for the BBB- rated retailer in Schedule 6B.1.

The *network charges liability* (NCL) for a retailer is defined as follows:

$$NCL = \Sigma NCLc;$$

where ΣNCLc is the forecast network charges consistent with the *maximum days outstanding* (MDO) calculation in section 6B.B2.3 of the NER. When the NCL of a retailer exceeds its CA the retailer must provide the DNSP with the *credit support requirement* (CSR) in excess of its CA accordingly:

$$CSR = Max\ (NCL - CA,\ 0).$$

Other issues identified with Schedule 6B.1

A deeper consideration of the rule change request has also identified some other issues requiring attention. Firstly, under the current settings the entire CA % for each retailer may be assigned to a *single-name retailer*. This illustrates a deficiency in the current rules in that *single name credit concentration risk* is not directly addressed in Schedule 6B.1. Specifically:

- *Single-name retail credit concentration risk* is not identified within Chapter 6B as a source of credit risk for DNSPs;
- The impacts of *Single-name retail credit concentration risk* are not measured for each DNSP (with a commensurate level of conservatism) within the NER; and

[16] 'Distribution credit support regime in the NECF':A REPORT PREPARED FOR AGL ENERGY, ORIGIN ENERGY AND ENERGY AUSTRALIA by Frontier Economics and SFG; April 2014. Pages 7-8.

- *Single-name retail credit concentration risk* should be controlled and mitigated such that Chapter 6B is brought into line with prevailing credit risk management in market practice.

Secondly, the CA % for *unrated* retailers in Schedule 6B.1 uses Dun and Bradstreet dynamic risk score ratings and aligns these to the CA % for other ratings agencies without undertaking the explicit CA % calculation using the Dun and Bradstreet specific dynamic risk score (i.e. implied PD) inputs. This has the effect of producing *unrealistic* CA's for unrated retailers. In some cases unrated subsidiaries that use Dun and Bradstreet risk scores, and with a rated parent, may be assigned a higher CA % than the parent. This appears a perverse outcome. The Dun and Bradstreet dynamic risk scores should be realigned with the ratings agencies in Schedule 6B.1 of NER as described in section 6 of the report.

Furthermore, to avoid doubling up of CA's, clauses 6B.B3.3 and 6B.B3.4 do not explicitly state that only the retailers corporate credit rating is to be used for calculating the credit allowances for entities / FRMPs within the group. An amendment to the definition of a retailer (to include its FRMP's) should clarify this ambiguity.

Rule Change Request by Proponent: Shift to A- to BBB- Benchmark

On 9th January 2015 AGL submitted a rule change request to the AEMC for its consideration: '*Re-calibrating risk under the Retailer-Distributor Credit Support Provisions*'. The rule change request specifically relates to Division 3 Chapter 6B of the NER and Division 4 in Part 21 of the NGR, being the sections relating to the Retailer-Distributor Credit Support Regimes. Part 21 of the NGR essentially mirrors the provisions in Chapter 6B of the NER, and as such, we focus on Chapter 6B impacts only and assume impacts are consistent across the NER and NGR.

At the heart of the rule change request is a shift in the benchmark credit rating used to set credit allowances in Schedule 6B.1 from the current A- benchmark to a BBB- benchmark as outlined in the table below obtained from the rule change proposal:[17]

Figure 1. Proposed formula to calculate Credit Support Requirement (CSR)

$$NCL \times DF^{BBB} = [NCL - CSR] \times DF^{Retailer}$$

**If $DF^{Retailer} \leq DF^{BBB}$ then $CSR = 0$*

Where:
NCL = network charges liability, as calculated under the current rules
DF^{BBB} = the default risk of a bare investment grade retailer
CSR = Credit support requirement
$DF^{Retailer}$ = the default risk of the retailer

The proposed changes, if implemented, would mean there would be no CSR for retailers rated BBB- and above. This is a significant change to the current DNSP *risk tolerance* settings as they appear in Schedule 6B.1 of the NER.

3 Risk Shifting: Move from A- to BBB- Benchmark

Rule Change Request: Reduction in Credit Support from Retailers

The critical element of the rule change request is a proposed shift from the current A- benchmark rating to a BBB- benchmark rating. The impact of the proposed change will increase the CA of all retailers with a rating below the current A- benchmark by replacing the A- benchmark rating in the numerator below with BBB- benchmark rating:

[17] See page 9 of Credit Support Rule Change Request. *Note*: the BBB reference appears to be a typo as BBB – is bare investment grade.

$$CA\ \% = \frac{PD\ (A-)}{PD(BBB-)}$$

This implies BBB- rated retailers and above would receive a CA % of 100%. As such there would be no CSR for a retailer unless it is rated a speculative grade of credit (i.e. BB+) or below. Given potential timing lags between a 'name crisis' event and a credit downgrade it may be too late to collect the increased CSR following a downgrade to sub BBB-.

Increase in DNSP *Risk Appetite* pursuant to a shift in Benchmark Rating

DNSPs are exposed to credit counterparty risk pursuant to NCs billings being collected by retailers from their customers and on behalf of DNSPs. From a first principles perspective credit risk is measured by undertaking an Expected Loss (EL) calculation as follows:

$$EL = PD \times EAD \times LGD$$

Table 3 defines the parameters of the EL calculation as follows:

Table 3: Summary of EL Calculation Parameters and Input / Estimate

EL Parameter	Input/Estimate
1. Probability of Default (PD)	Annual default probability as provided by S&P, and/or other credit rating agency.
2. Exposure at Default (EAD)	The Cashflow-at-Risk (CFaR) cash shortfall in revenue from billings defined over a relevant time period (i.e. holding period) consistent with the liabilities faced by the DNSP
3. Loss Given Default (LGD)	1-RR.
4. Recovery Rate (RR)[18]	Assumed zero as a conservative measure (i.e. not recoverable within 1 year of default).

The increase in CA pursuant to the proposed shift in benchmark credit rating is a significant change to the current settings in Schedule 6B.1. It effectively increases the DNSPs *risk tolerance* by increasing the risk of a potential shortfall in cash from the retailer to the DNSP. The proposal has been made without a full consideration of the financial impacts on DNSPs in light of this risk transfer.

This increase in DNSP *risk tolerance* pursuant to the CA increase is illustrated by both the impact of change and the increase in the EL measure for a BBB- rated retailer when the benchmark A- credit rating is shifted to lower credit ratings as shown in Table 4 holding periods from 5 weeks to 8 weeks:[19]

Table 4: Impact Scenarios showing increase in DNSP *Risk Tolerance*: Increase in CA %, CA and EL for a BBB- retailer pursuant to shift away from A- benchmark credit rating at holding periods of 5 weeks to 8 Weeks:[20]

[18] A full analysis of RR and impacts on PD's and EL has not been assessed.

[19] These holding periods can be compared to the longer holding period of the current MCA discussed earlier which is approx. 90 days or circa 12 weeks.

[20] PD refers to historical *Probability of default* at each rating level as provided by Standard & Poor's, Moody's or Fitch.

Benchmark Credit Rating	CA (%) for BBB-	CA for BBB-	EL[21]
5 week revenue of $287,727,133			
A-	21.95%	$63,159,614	$258,954
BBB-	100.00%	$287,727,133	$1,179,681
Impact of Change	**78.05%**	**$224,567,519**	**$920,727**
6 week revenue of $345,272,560			
A-	21.95%	$75,791,537	$310,745
BBB-	100.00%	$345,272,560	$1,415,617
Impact of Change	**78.05%**	**$269,481,023**	**$1,104,872**
7 week revenue of $402,817,987			
A-	21.95%	$88,423,460	$362,536
BBB-	100.00%	$402,817,987	$1,651,553
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8 week revenue of $460,363,414			
A-	21.95%	$101,055,383	$414,327
BBB-	100.00%	$460,363,414	$ 1,887,490
Impact of Change	**78.05%**	**$359,308,031**	**$1,473,163**

In a nutshell:

- The CA % increases by 78.05 % for BBB- rated retailers;
- The CA for BBB- rated retailers (in dollar terms) increases to a range of $225m and $360m (assuming the retailer has 100 % jurisdictional market share); and
- The EL increases by between $920k and $1.5m for BBB- rated retailers. The EL is relatively lower in quantum to the exposure since EL incorporates the probability of default which is low. In practice, the exposure is much higher if there was a default. EL is also silent on systemic impacts.

The scenarios capture the upper bound impact of the rule change request. To this end, there is nothing in the current NER stopping a single retailer obtaining a 100 % jurisdictional market share of a DNSP's jurisdiction. The scenarios are considered an extreme 'Name Crisis' event for a DNSP; regardless of retailer credit rating. The only mitigant available to a DNSP is the extent of retail competition (i.e. counterparty diversification) within jurisdictions, of which the DNSP has no control over due to its obligation to serve customers. EnergyAustralia, at a BBB- rating represents 44.1 per cent market share of Ausgrid's current exposure.

Each DNSP is unique in terms of capital structure (i.e. leverage), target credit rating, debt covenants, dividend policy and cash-flow / liquidity constraints. As such each DNSPs *risk tolerance* will vary even though each faces contractual and regulatory obligations to serve customers. The cash-flow / liquidity requirement, coupled with the obligation to serve, create the potential for tight asset / liability mismatches over very short time-frames (i.e. weeks).

Any cash short-fall exposing the DNSP to cash-flow / liquidity risk may, in extreme cases; lead to insolvency if the DNSP does not carry sufficient committed facilities (i.e. working capital). The 'Name Crisis' scenario outlined above seeks to capture the potential for such insolvency. It will not necessarily be captured by prevailing credit ratings due to the adverse circumstances under which 'name crisis' scenarios occur. Credit

[21] Given 1 year default probabilities are used the EL is interpreted as loss associated with 1 default only over the course of 1 year. The default may occur at any holding period during that year but there will only be 1 default. We have not applied a discount to the EL given the < 1 year time frame.

ratings are more concerned with a 'going concern' scenario and seek to capture the expected behaviour of cash-flows in the ordinary course of business over a future period. [22] 'Going concern' impacts seek to capture the potential for credit rating downgrades and the pursuant increase in the cost of capital.[23] 'Name Crisis' scenarios seek to capture the very short term impacts in comparison to 'going concern' scenarios.

DNSPs will need to hold significantly more working capital / committed facilities to mitigate to risk transfer pursuant to the rule change request.

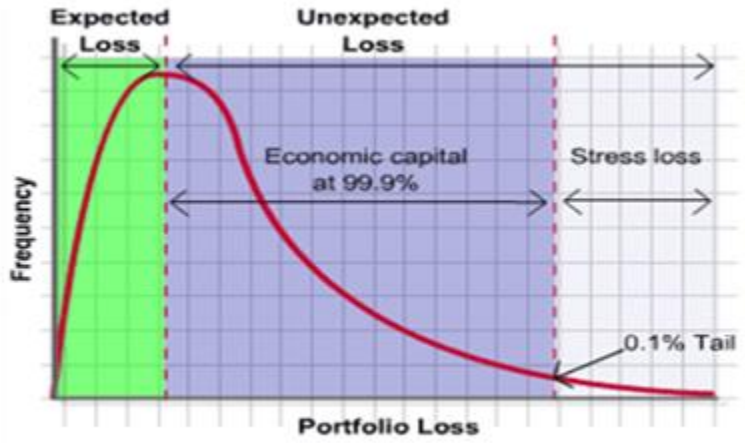
Other than the direct impact of the risk transfer in target credit ratings and subsequent impact on cost of funds discussed above, DNSPs receive no reward for assuming this increase in risk appetite due to the fixed and regulated nature of NCs billings. Furthermore payment terms do not appear to be used by DNSPs under existing arrangements as evidenced in DNSP annual public reports:

> 'The average credit period on Distribution Use of System revenue is 14 days (2012: 14 days). No interest is charged on Distribution Use of System revenue trade receivables'.[24]

Shift in risk: A- to BBB- Benchmark and Risk Transfer to DNSPs

EL measure is a point estimate of the broader portfolio loss distribution that measures actual exposures. The loss distribution has both the EL and the Unexpected Loss (UL). Figure 3 shows the relationship between EL and UL:

Figure 3: The relationship between EL and UL:



Conceptually, it is the total loss over and above EL for which capital must be held. UL over a holding period is estimated using statistical measurement techniques for the estimation of percentiles for portfolio losses

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[22] Ratings agencies look at key financial metrics in their quantitative assessments including:

- Debt / Equity,
- Funds from Operations (FFO) / Debt; and
- Interest Cover Ratio (ICR).

[23] The difference between the 'name crisis' scenario and 'going concern' scenario are explained from a banking prudential management perspective in Australia Prudential Standard 210 – Liquidity (January 2014) – para 53 and 54.

[24] SA Power Networks Annual Report 2013; page 26.

within a degree of confidence (i.e. Confidence Interval (CI)).[25] Provisions may be made for EL as they are expected in the course of time. EL may also be priced for. UL is neither provisioned for, nor priced for. However a buffer of economic capital (i.e. equity) must be held to weather the threat of insolvency pursuant to UL.

Question for AEMC and Stakeholder Consideration

The following question was suggested to the AEMC to present to stakeholders as part of its issues paper during the industry consultation process specifically relating to the shift in benchmark rating:

	Suggested Stakeholder Consideration – Question
1	Based on DNSP Board and shareholder risk tolerance, what ratings benchmark should a DNSP set their credit allowances to ?

4 Single-name Retailer Credit Concentration Risk

Inadequacy of Industry Concentration Measures to capture *Single Names*

The current settings in Schedule 6B.1 allow the full CA for a given credit rating to be allocated to a single retailer. There is no explicit consideration of *single name credit concentration risk* facing DNSPs within the current rules in setting CA's for individual retail counterparties. DNSPs are typically heavily exposed to the three large retailers (EnergyAustralia, AGL, and Origin Energy) from a shortfall in revenue perspective pursuant to NCs billings which retailers collect on behalf of DNSPs. In some jurisdictions DNSP's may even be heavily exposed to a single counterparty.

A survey of credit risk exposure statements from select DNSP public annual reports across the National Electricity Market (NEM) is illustrated in Table 5 below. Some DNSPs more exposed to *single name credit concentration risk* than others (E.G SA Power Networks is exposed to a major single retailer in terms of NCs billings):

Table 5: Credit Risk Exposure Statements from Select DNSP Public Annual Reports

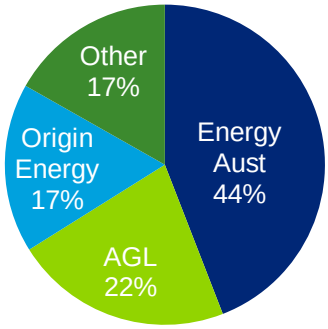
DNSP	Credit Risk Exposure Statement from Annual Report
SA Power Networks	The group has adopted a policy of only dealing with creditworthy counterparties and obtaining sufficient collateral where appropriate, as a means of mitigating the risk of financial loss from defaults. The group's exposure and the credit ratings. The group's exposure and the credit ratings of its counterparties are continuously monitored and the aggregate value of transactions concluded is spread amongst approved counterparties. Credit exposure is controlled by counterparty limits that are reviewed and approved by the audit committee annually. Distribution Use of System revenue trade receivables consists of a small number of electricity retailers. Other trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. Ongoing credit evaluation is performed on the financial condition of accounts receivable, and where appropriate, bank guarantees are obtained and credit guarantee insurance cover is purchased. The group has a significant credit risk exposure to a single counterparty and a group of counterparties having similar characteristics, namely electricity retailers and, in particular, one major electricity retailer.

[25] CVaR is an accepted credit risk measurement approach. Rating Transition matrices may also be used in simulating the portfolio loss distribution. We have not considered these approaches within the scope of this report.

DUET Group – United	There is no concentration of credit risk with respect to current and non-current receivables as the Group has a number of customers throughout Australia who in turn have a large number of retail customers. The credit risk to corporates includes shareholder funding of the associated entities and services provided to users of the gas and electricity networks of MGH and UEDH and the DBNGP. These counterparties have their own credit ratings which form part of the overall credit risk assessment made by each business.

Using a breakdown of Ausgrid's market share information indicates the three major retailers comprise approximately 80 per cent of DNSP annual revenue. Figure 4 displays market shares by retailer for Ausgrid. EnergyAustralia has dominant market share at approximately 44 %:

Figure 4: Market Share by Retailer for Ausgrid



A measure often used to examine the extent of market concentration in a particular industry is the Herfindahl-Hirschman Index (HHI). The HHI is defined as the sum of squared market shares. Assuming three major retailers with the assigned market shares in Figure 4, as well as ten other fringe retailers each with equal market share, the HHI for AusGrid's retail counterparties is equal to 2,749. Markets and industries with HHI above 2,500 are considered to be concentrated.[26]

Although industry concentration measures such as the HHI attempt to assign a weight to individual market shares they are inadequate in capturing the impact of a *single-name credit concentration* given the lack of granularity and uniformity in industries such as the retail power sector as evidenced by SA Power Networks. Single name concentrations will require specific concentration limits when the market share of the single name reaches a certain threshold of billings / trade receivables which we address next.

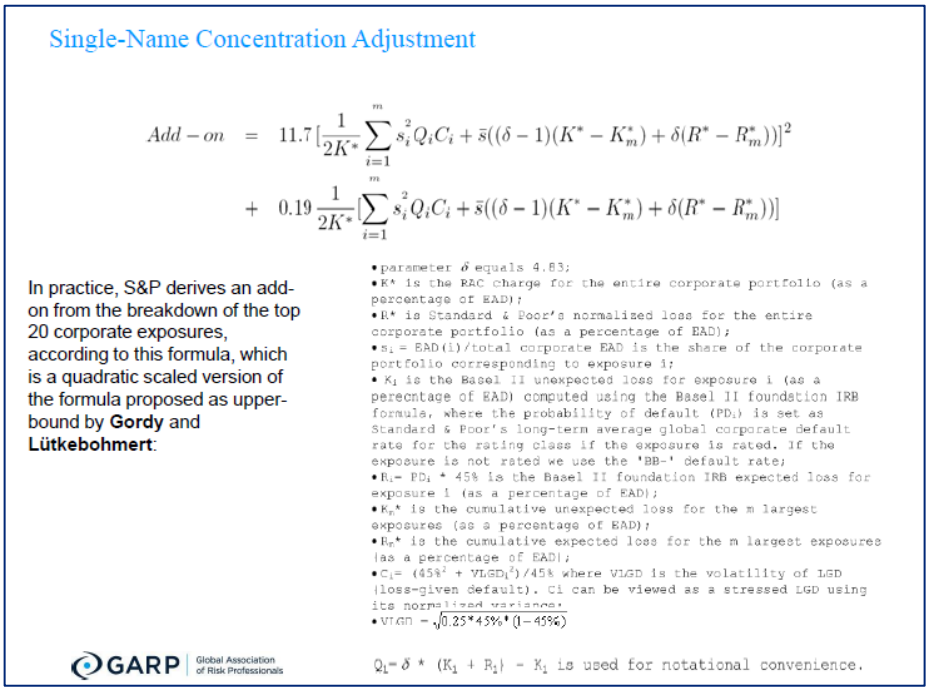
Perspectives on *Single Name Concentration Risk* from Outside: Basel and S&P Guidance

Although banking regulations do not apply directly to the NEM it is valuable to glean any insight which may be applicable. Under Basel II, there is no quantitative approach mentioned for how to deal with risk concentrations. Instead, it is merely demanded that "entities should have in place effective internal policies, systems and controls to identify, measure, monitor and control their credit risk concentrations". Furthermore, the Australian Prudential Standard (APS) 112 and APS 113 mention that concentrations must be 'monitored and controlled' but there is no specific change to the Risk Weighted Assets (RWA) formula other than an attempt through Basel III to increase the concentrations for *single names* using the Asset Value Correlation

[26] see http://www.justice.gov/atr/public/guidelines/hhi.html.

Multiplier (AVCM). There is reference to thresholds of 5 per cent of the bank's asset base for identifying large exposures. [27]

There is also reference to S&P applying an 'Add-on' to total corporate RWA to capture single name concentrations in the corporate book using the largest 20 named corporate exposures as per the description below:[28]



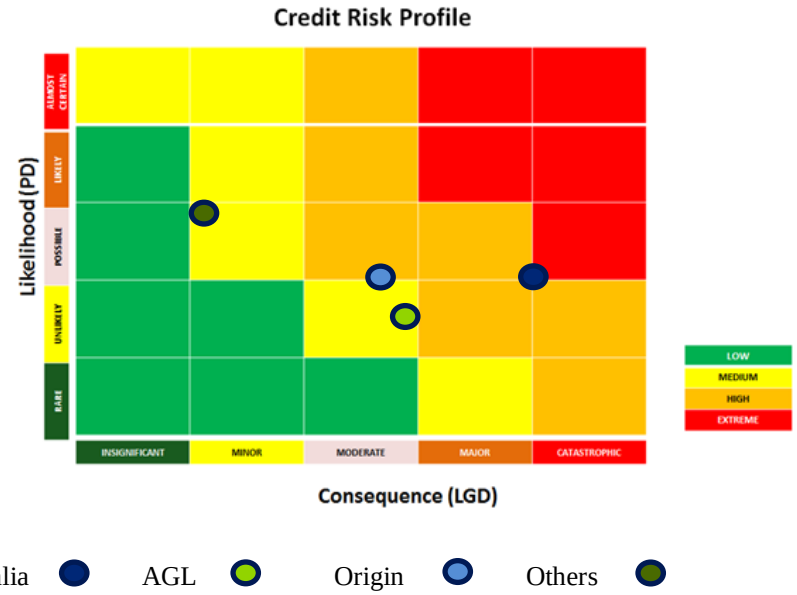
Threshold Market Share for *Single Name Retail Concentration Risk*

The credit support provisions in the NER should be designed to provide for appropriate levels of credit support to DNSPs across their entire portfolio of retailers. This includes high value / low risk of default retailers and low value/ high risk of default retailers. Ideally the provisions should take account both of the likelihood of default of an individual retailer based on their credit rating (or dynamic risk score if unrated) and the level of exposure to an individual retailer. This is illustrated in Figure 5 below where the credit risk profiles of the big three retailers (and smaller fringe) are mapped against likelihood (PD) and consequence (LGD); based on current credit ratings and market shares:

Figure 5: Credit Risk Profile of the big three retailers and the other smaller fringe of retailers

[27] Consultative Document, Supervisory framework for measuring and controlling large exposures Issued for comment by 28 June 2013.

[28] Concentration Risk: Where are We, Miguel A. Iglesias. Global Association of Risk Professionals Sep 2014.



Some DNSPs are heavily exposed to *single-name retailers* in respect of NCs billings as per EnergyAustralia. For this reason the CSR should be based on the credit worthiness of the retailer and the level of exposure (i.e. cash shortfall) to that retailer over a relevant period of time (i.e. the holding period) that matches the DNSPs liabilities; and not based on a percentage of the TARC.

The CFaR relative to market share determines the *Threshold Market Share* above which emergency funds will be required by DNSPs pursuant to a *single name* retailer default:

$$Threshold\ Market\ Share\ (\%) = 1 - \frac{DNSP\ Liability}{DNSP\ Billing\ Revenue} = \frac{CFaR}{DNSP\ Billing\ Revenue}$$

Any retailer with a market share greater than the *Threshold Market Share* exposes the DNSP to *single name concentration risk*. As such when a retailer's market share is greater than the *Threshold Market Share* the total CSR for that retailer should include an 'add-on' *Concentration Premium* which only applies to the retailers market share above the *Threshold Market Share*. The *Market Share Premium* and *Concentration Premium* are defined as follows:

$$Market\ Share\ Premium = \max\big((Retailer's\ market\ share - Threshold\ Market\ Share) \times CFaR, 0\big)$$

$$Concentration\ Premium = Market\ Share\ Premium\ \times (1 - CA\ \%)$$

By example:

Ausgrid collects $287.7m in billing revenue over a given 5 week period, within this 5 week period Ausgrid must honour a committed liability of $170m. This exposes Ausgrid to a CFaR of $117.7m. As such the threshold market share is 41%. The concentration premium will only be applied on top of the CSR for any retailer with a market share greater than 41%.

Given EnergyAustralia has a current market share of 44.1% it contributes billing revenue to Ausgrid of $127m in this period. The market share premium will be the product of 3.1% and the CFaR of $117.7m which is equal to $3.5m. Using an A- benchmark, and the fact that EnergyAustralia is rated BBB-, the corresponding CA % is 21.95%. Therefore the *Concentration Premium* is 78.05% of $3.5m which is equal to $2.7m.

Concentration Premium Add-ons and Total CSR

Figure 6 illustrates the CSR and *Concentration Premium* using EnergyAustralia's retail market share of 44.1% at various credit ratings and a benchmark credit rating of A-, over a 5 week period:

Figure 6: Capturing concentration risk of a 44.1% market share retailer, over a 5 week period, using an A- benchmark

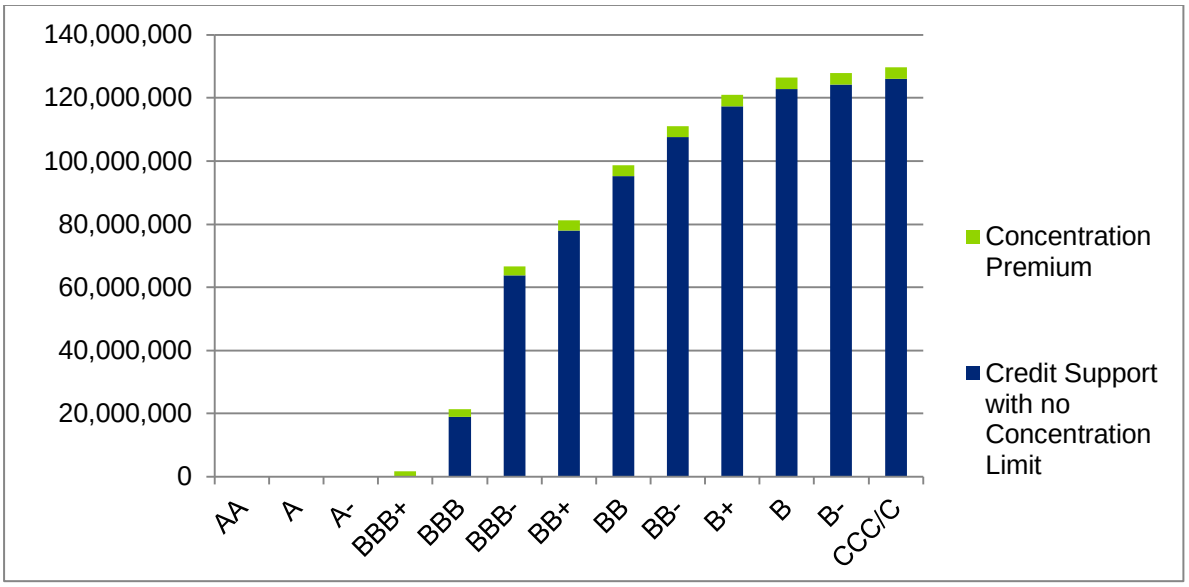


Figure 7 illustrates a retailer market share of 30%. In this case no concentration premium applied to the CSR:

Figure 7: Capturing concentration risk of a 30% market share retailer, over a 5 week period, using an A- benchmark

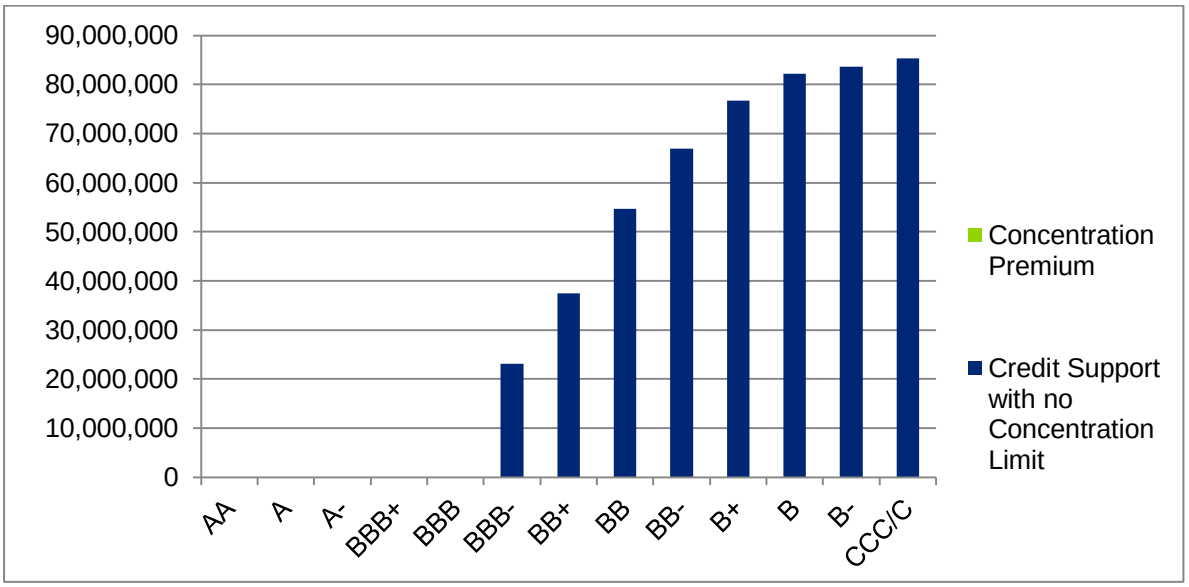
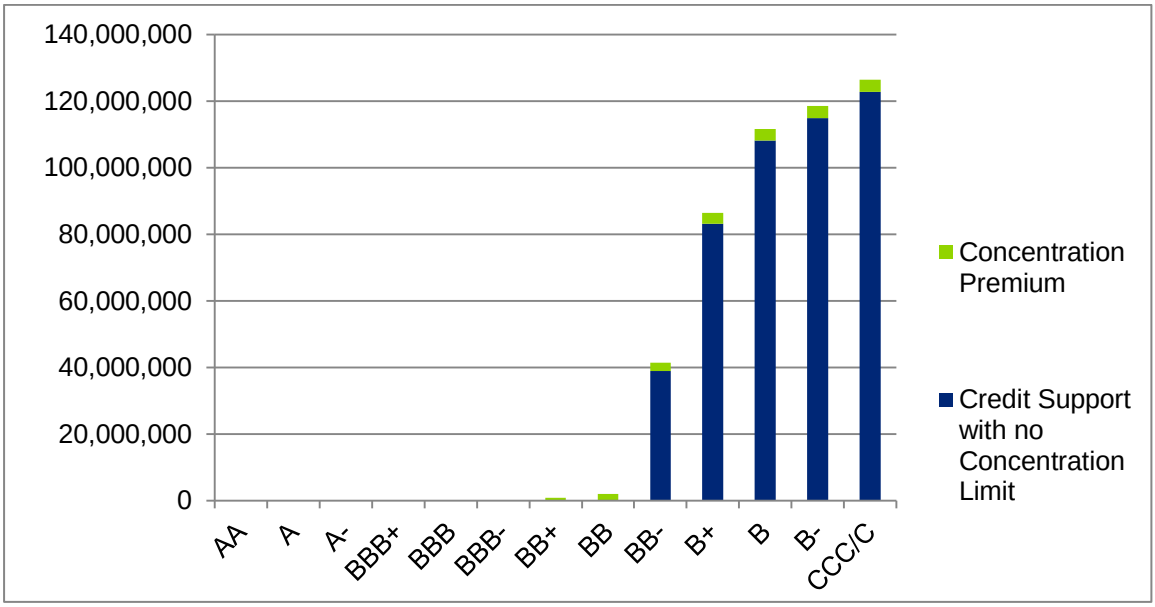


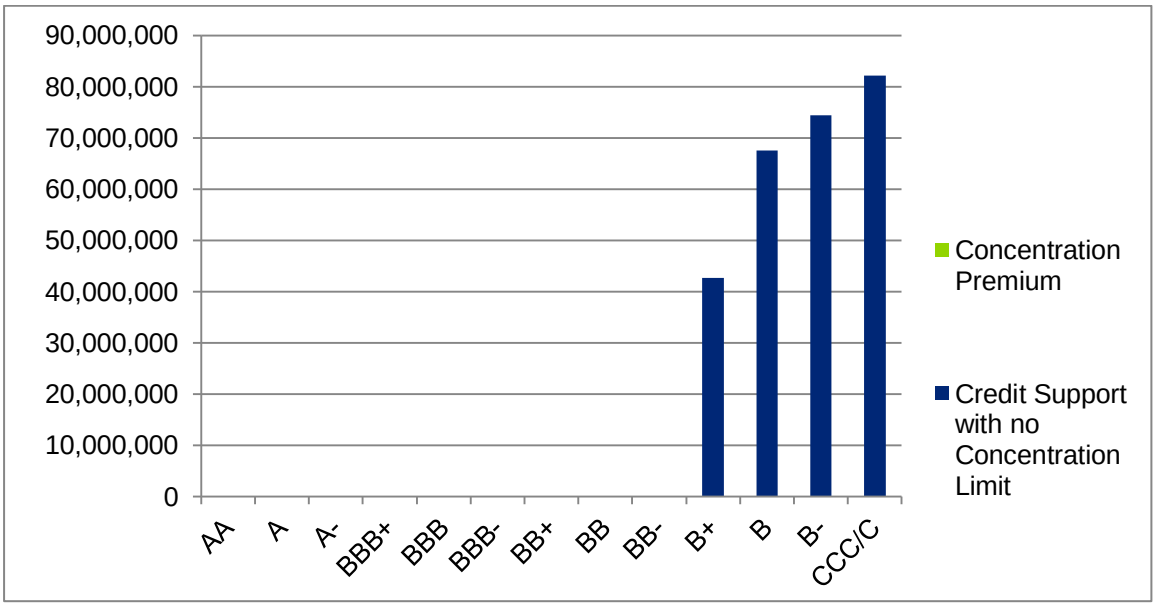
Figure 8 panels (a) and (b) demonstrates the impact of changing the benchmark from that of an A- entity to that of a BBB- entity. Comparing Figure 6 to Figure 8 panel (a) and Figure 7 to Figure 8 panel (b), it can be seen that the overall CSR requirement has fallen owing to the shift in benchmark, as well as the *Concentration Premium* that is applied to the 44.1% market share retailer (see Tables A2 and A4 in the Appendix). It is important to note that the more conservative the benchmark from a prudential perspective, the higher the CSR and *Concentration Premium*.

Figure 8: Capturing concentration risk, over a 5 week period, using a BBB- benchmark

(a) 44.1% Market share retailer



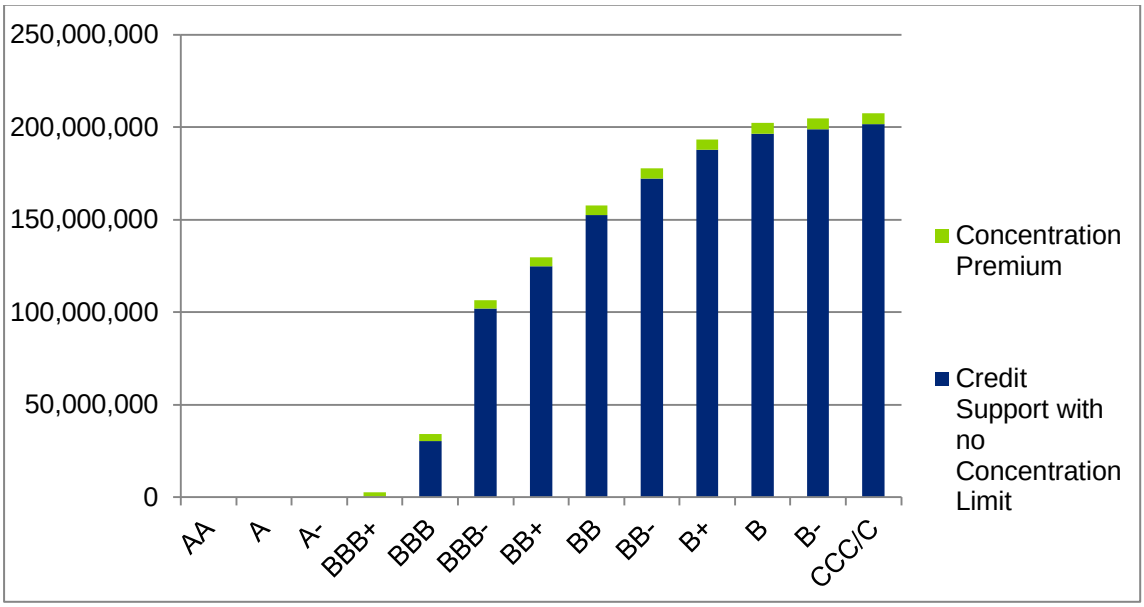
(b) 30% Market share retailer



Note that the choice of holding period (5 weeks up to 8 weeks), only effects the magnitude of *Concentration Premium* To illustrate this, the billing period was increased from 5 weeks to 8 weeks. Figure 9, panels (a) and (b) are comparable to Figures 6 and 7, respectively; and Figure 10 is comparable to Figure 8.

Figure 9: Capturing concentration risk, over an 8 week time period, using an A- benchmark

(a) 44.1% Market share



(b) 30% Market share

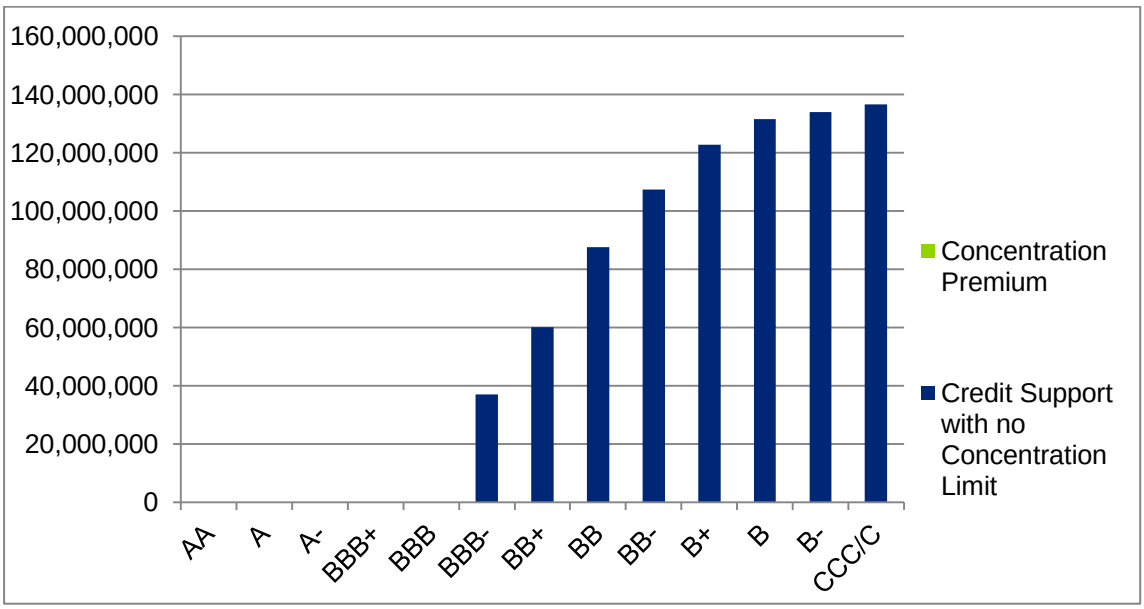
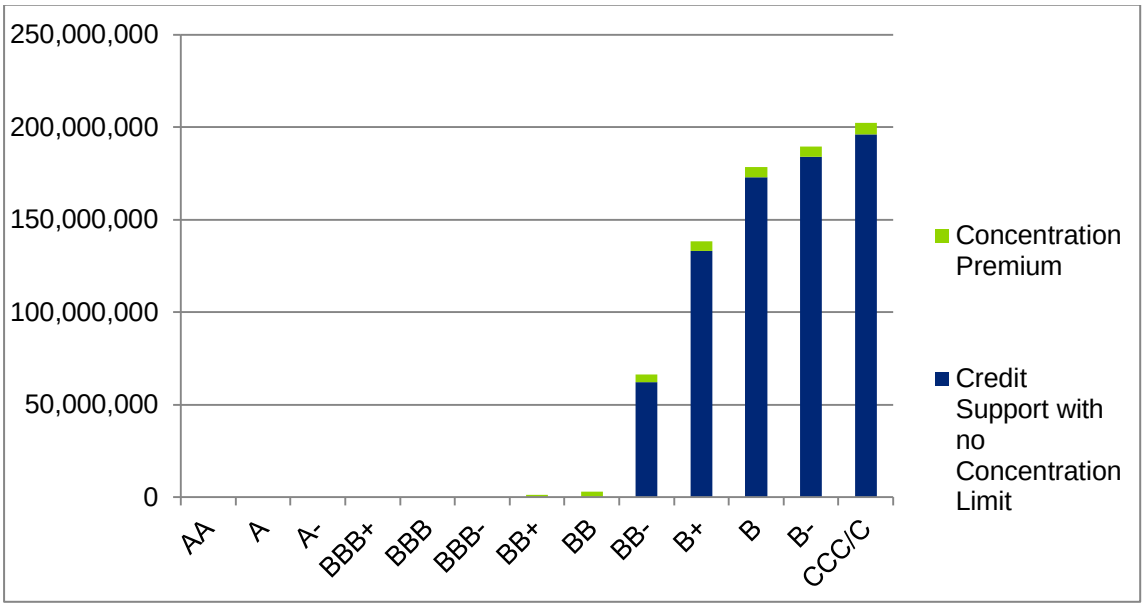
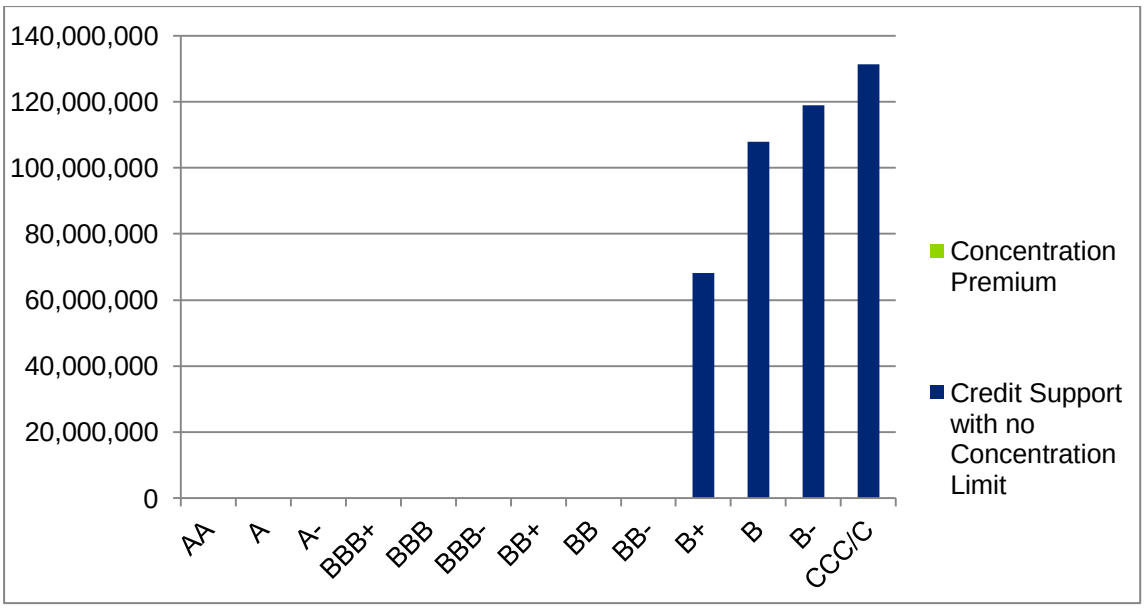


Figure 10: Capturing concentration risk, over an 8 week time period, using a BBB- benchmark

(a) 44.1% Market share



(b) 30% Market share



Tables A4 and A5 in the appendix contain the numerical values for Figures 9 and 10, respectively.

Questions for AEMC and Stakeholder Consideration – Single-name Concentration

The following questions were suggested to the AEMC to present to stakeholders as part of its issues paper during the industry consultation process specifically relating to single name concentration risk in the retail power market:

	Suggested Stakeholder Consideration – Questions
1	What percentage of a DNSPs billings is attributed to its single largest energy retail counterparty ?
2	If the DNSPs largest retailer fails, how long (days / weeks) would it be before the cash flow impact requires the DNSP to seek emergency external funding?

5 Use of Dun and Bradstreet Dynamic Risk Scores

Unrealistic Credit Allowances for Unrated retailers

The CA % for *unrated* retailers in Schedule 6B.1 uses Dun and Bradstreet dynamic risk score ratings and aligns these to the CA % for other ratings agencies without undertaking the explicit CA % calculation using the Dun and Bradstreet specific dynamic risk score (i.e. implied PD) inputs. This has the effect of producing *unrealistic* CA's for unrated retailers. In some cases unrated subsidiaries that use Dun and Bradstreet risk scores, and with a rated parent, may be assigned a higher CA % than the parent. This appears a perverse outcome. The Dun and Bradstreet dynamic risk scores should be realigned with the ratings agencies in Schedule 6B.1 of NER.

A consistent process would align rated / unrated retailers to an appropriate source of data S&P / Dunn and Bradstreet to ensure a more realistic credit allowances for un-rated retailers:

Rated Retailer	Use S&P historical PDs (as per current rules)
Unrated Retailer	Use Dunn and Bradstreet Dynamic Risk Scores

Table 6 illustrates are more appropriate alignment of ratings agency credit ratings and Dun and Bradstreet dynamic risk scores for Schedule 6B.1:

Table 6: A proposed realignment of ratings agency credit ratings with Dun Bradstreet:

S&P		Dun and Bradstreet Recommendation		
AA	0.02			
A	0.09			
A-	0.09	1508-1999	0.09%	Minimal
BBB+	0.17			
BBB	0.24	1474-1507	0.21%	Very Low
BBB-	0.41	1424-1473	0.40%	Low
BB+	0.53			
BB	0.82	1359-1423	1.09%	Average
BB-	1.34			

B+	2.7	1323-1358	2.35%	Moderate
B	6.26	1298-1322	4.12%	High
B-	9.86	1232-1297	9.66%	Very High
CCC/C	27.98	1001-1231	30.93%	Severe

Doubling up of CAs - unrated FRMP with rated Parents

To avoid doubling up of CA's, clauses 6B.B3.3 and 6B.B3.4 do not explicitly state that only the retailers corporate credit rating is to be used for calculating the credit allowances for entities / FRMP's within the group.

Whilst clauses 6B.B3.3 and 6B.B3.4 do not explicitly state that only the retailers corporate credit rating is to be used for calculating the credit allowance for entities / FRMP's within the group, the NSW DNSPs do not believe that the policy makers intended that large retailers would use a combination of corporate credit ratings (for the rated FRMP) and dynamic risk scores for un-rated FRMP's within a group entity as this would result in the doubling of credit allowance and inadequate credit support for a DNSP.

An amendment to the definition of a retailer (to include its FRMP's) should clarify this ambiguity.

Questions for AEMC and Stakeholder Consideration – Realistic Credit Allowances for Unrated Retailers

The following question were suggested to the AEMC to present to stakeholders as part of its issues paper during the industry consultation process specifically relating to the construction of more realistic CAs for unrated retailers:

	Suggested Stakeholder Consideration – Questions
1	How could the Rules be improved to provide realistic credit allowances in respect to un-rated energy retailers?

6 AEMC Consultation Paper – 28 May 2015

On 28 May 2015 the AEMC released its Consultation Paper:

> 'National Electricity Amendment (Retailer-Distributor Credit Support Requirements) Rule 2015, National Gas Amendment (Retailer – Distributor Credit Support Requirements) Rule 2015 – Rule Proponent AGL.

Freeing up Capital for Retailers

The AEMC consultation paper canvasses a broad range of regulatory and financial risk management issues associated with the rule change request. The rule change proponent suggests the AEMC assess the rule change request against the National Electricity Objective (NEO) and the National Gas Objective (NGO) and that the rule change request will achieve the following:[29]

[29] Page 10 of AEMC consultation paper.

- Promote efficient investment in the electricity and gas markets by freeing up capital that is currently inefficiently tied up servicing poorly targeted policy objectives;

- Better align a retailers contribution to credit support with their level of credit risk, encouraging them to make prudent decisions with respect to their payment practices and reducing risk overall, which will promote reliability of supply; and

- Reduce costs to retailers of providing retail services, which will result in lower prices for consumers.

It is difficult to quantify any positive societal benefits associated with freeing up capital for a retailer to invest by transferring risk to the DNSP. Under this interpretation DNSP's (and therefore their customers) would be allocating capital to retailer investments of between $250m to $450m:

> 'a reduction in funds available for re-investment in the electricity and gas markets of between $250 and $450 million.'[30]

Risk of Default and Impact of Default

The AEMC considers both the risk of retailer default and the impact of default in its consultation paper. [31] In regard to the impact of default it states:

> 'A prudent and efficient network business may also have an aversion to any cascading risk from a large retailer default. A distributor that has a large portion of its revenues from a single retailer may face a cascading risk that if the large retailer were to default, any delay or inability to recover revenue might risk the network business also defaulting on other payments. This could be a substantial risk for distributors such that there could be additional costs in order to avoid the cascading risk of the distributor defaulting on payments in the event of a large retailer default as raised in the AEMC's NEM financial market resilience review.

Overall, an effective rule to manage the risk of retailer default should consider protection for the distributor against the risk of retailer default:

- In proportion to each retailer's share of a distributor's revenue; and

- Adjusted for any additional *cascading risk* from a large retailer default.

Principles for an effective risk management rule

In terms of determining a set of principles for an effective risk management rule, the AEMC rightly states:[32]

> 'A rule to manage the risk of retailer default will affect how and which market participants bear the responsibility and costs of managing the revenue and cash flow risks to the distributor from retailer default.'

The AEMC proposes that the following principles guide the development and assessment of an effective rule for managing the risk of retailer default:[33]

1. The rule allocates appropriate risks to the parties that have the information, ability and incentives to best manage each risk in order to minimise the long-term costs to consumers;

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[30] Ibid Page 10.

[31] Ibid page 18.

[32] Ibid page 13

[33] Ibid page 14.

2. The rule takes into account the risk of retailer default and the impact of default;

3. The rule takes into account the trade-off between flexibility and regulatory certainty;

4. The rule takes into account the impact on barriers to entry for retail business; and

5. The rule takes into account the impact on customers from changes in network revenue as a result of the revenue and pricing principles.

From a credit risk management first principles perspective Chapter 6B of the NER outlines the credit limit setting framework for a DNSP. This eliminates principle 3 and 4 as regulatory and competition policy objectives are best achieved through other instruments; not credit risk objectives. We have addressed principle 2 (concentration risk).

What remains is to explain the transfer of cash-flow / liquidity risk to DNSPs pursuant to the rule change request in light of principles 1 and 5 which appear opposites of the same coin – retailers are best placed to decide on risk adjusted returns of their investments (principle 1) and are DNSP customers able to and should fund single retailer investments (principle 5)? Will efficient investment incentives prevail from a transfer of risk to DNSP and its customers? As the current divestment behaviour of the proponent demonstrates, DNSPs customers would not be served well if such investment opportunities were to be taken up by the proponent again. As such retailers are best served to manage their own credit risk and cash-flow liquidity risk in line with their own risk appetite and to align their incentives with their own target credit ratings to ensure efficient investment incentives. DNSPs should not fund retail investments as this is not their purpose given their obligation to serve.

Pass through and reducing liabilities

Finally the consultation paper discusses alternative mechanisms to address the risk of retailer default including:[34]

- Recovery through the regulatory determination process;
- Recovery through the cost pass-through mechanism;
- Recovery through the corporate insolvency process; and
- Minimising a retailer's network charges liability.

The three recovery mechanisms will not alleviate the potential cash shortfall risk faced by DNSPs. Minimising the retailers network charges liability will reduce the cash-flow risk through more frequent billing and faster transition of customers to a new retailer post default. The substitute for credit support would be the requirement for increased working capital by retailers in order to pay bills faster; and retailers would need to balance each cost accordingly.

[34] Ibid page 27.

Appendix A – Detailed Tables and Workings

Table A1: Impact Scenarios for CA%, CA and EL pertaining to different PD benchmarks (5 weeks > 8 weeks)

Shift in Benchmark Credit Rating	CA (%)			CA			EL		
	BBB+	BBB	BBB-	BBB+	BBB	BBB-	BBB+	BBB	BBB-
(a) 5 week revenue of $287,727,133									
A-	52.94%	37.50%	21.95%	$152,322,744	$107,897,675	$63,159,614	$258,949	$258,954	$258,954
BBB+	100.00%	70.83%	41.46%	$287,727,133	$203,806,719	$119,301,494	$489,136	$489,136	$489,136
BBB	100.00%	100.00%	58.54%	$ 287,727,133	$287,727,133	$168,425,639	$489,136	$690,545	$690,545
BBB-	100.00%	100.00%	100.00%	$287,727,133	$287,727,133	$287,727,133	$489,136	$690,545	$1,179,681
Δ A-> BBB+, BBB or BBB-	***47.06%***	***62.50%***	***78.05%***	***$ 135,404,389***	***$ 179,829,458***	***$224,567,519***	***$230,187***	***$431,591***	***$920,727***
(b) 6 week revenue of $345,272,560									
A-	52.94%	37.50%	21.95%	$182,787,293	$129,477,210	$75,791,537	$310,738	$310,745	$310,745
BBB+	100.00%	70.83%	41.46%	$345,272,560	$244,568,063	$143,161,793	$586,963	$586,963	$586,963
BBB	100.00%	100.00%	58.54%	$345,272,560	$345,272,560	$202,110,767	$586,963	$828,654	$828,654
BBB-	100.00%	100.00%	100.00%	$ 345,272,560	$345,272,560	$345,272,560	$586,963	$828,654	$1,415,617
Δ A-> BBB+, BBB or BBB-	***47.06%***	***62.50%***	***78.05%***	***$ 162,485,267***	***$215,795,350***	***$269,485,233***	***$276,225***	***$517,909***	***$1,104,872***
(c) 7 week revenue of $402,817,987									
A-	52.94%	37.50%	21.95%	$213,251,842	$151,056,745	$88,423,460	$362,528	$362,536	$362,536
BBB+	100.00%	70.83%	41.46%	$402,817,987	$285,329,407	$167,022,092	$684,791	$684,791	$684,790
BBB	100.00%	100.00%	58.54%	$402,817,987	$402,817,987	$235,795,895	$684,791	$966,763	$966,763
BBB-	100.00%	100.00%	100.00%	$402,817,987	$402,817,987	$402,817,987	$684,791	$966,763	$1,651,553
Δ A-> BBB+, BBB or BBB-	***47.06%***	***62.50%***	***78.05%***	***$189,566,145***	***$251,761,242***	***$314,399,439***	***$322,262***	***$604,227***	***$1,289,017***
(d) 8 week revenue of $460,363,414									
A-	52.94%	37.50%	21.95%	$ 243,716,391	$172,636,280	$101,055,383	$414,318	$414,327	$414,327
BBB+	100.00%	70.83%	41.46%	$ 460,363,414	$326,090,752	$190,882,391	$782,618	$782,618	$782,617
BBB	100.00%	100.00%	58.54%	$460,363,414	$460,363,414	$269,481,023	$782,618	$1,104,872	$1,104,872
BBB-	100.00%	100.00%	100.00%	$460,363,414	$460,363,414	$460,363,414	$782,618	$1,104,872	$1,887,490
Δ A-> BBB+, BBB or BBB-	***47.06%***	***62.50%***	***78.05%***	***$216,647,023***	***$ 287,727,134***	***$359,313,645***	***$368,300***	***$690,545***	***$1,473,163***

Table A2: Credit Support Requirements under 44.1% and 30% Market shares where both scenarios are indexed to an A- benchmark over a 5 week period

		44.1% Market Share of Largest retailer						30% Market Share of Largest retailer					
Rating	PD (%)	CA (A-)	Concentration	Credit Support with no Concentration Limit	Market share premium	Concentration Premium	Sum	CA (A-)	Concentration	Credit Support with no Concentration Limit	Market share premium	Concentration Premium	Sum
AA	0.02	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
A	0.09	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
A-	0.09	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
BBB+	0.17	152,326,130	62,326,130	0	3,748,146	1,763,833	1,763,833	152,326,130	62,326,130	0	0	0	0
BBB	0.24	107,897,675	44,147,675	18,989,991	3,748,146	2,342,591	21,332,582	107,897,675	44,147,675	0	0	0	0
BBB-	0.41	63,159,615	25,842,542	63,728,051	3,748,146	2,925,382	66,653,433	63,159,615	25,842,542	23,158,525	0	0	23,158,525
BB+	0.53	48,859,325	19,991,400	78,028,341	3,748,146	3,111,668	81,140,009	48,859,325	19,991,400	37,458,816	0	0	37,458,816
BB	0.82	31,579,807	12,921,271	95,307,859	3,748,146	3,336,764	98,644,622	31,579,807	12,921,271	54,738,333	0	0	54,738,333
BB-	1.34	19,324,957	7,907,046	107,562,709	3,748,146	3,496,404	111,059,114	19,324,957	7,907,046	66,993,183	0	0	66,993,183
B+	2.7	9,590,904	3,924,238	117,296,762	3,748,146	3,623,207	120,919,969	9,590,904	3,924,238	76,727,236	0	0	76,727,236
B	6.26	4,136,652	1,692,563	122,751,014	3,748,146	3,694,259	126,445,273	4,136,652	1,692,563	82,181,488	0	0	82,181,488
B-	9.86	2,626,313	1,074,588	124,261,353	3,748,146	3,713,933	127,975,287	2,626,313	1,074,588	83,691,828	0	0	83,691,828
CCC/C	28	925,498	378,679	125,962,168	3,748,146	3,736,089	129,698,257	925,498	378,679	85,392,642	0	0	85,392,642

Table A3: Credit Support Requirements under 44.1% and 30% Market shares where both scenarios are indexed to a BBB- benchmark over a 5 week period

	44.1% Market Share of Largest retailer						30% Market Share of Largest retailer					
Rating	**CA (BBB-)**	**Concentration**	**Credit Support with no Concentration Limit**	**Market share premium**	**Concentration Premium**	**Sum**	**CA (BBB-)**	**Concentration**	**Credit Support with no Concentration Limit**	**Market share premium**	**Concentration Premium**	**Sum**
AA	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
A	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
A-	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
BBB+	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
BBB	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
BBB-	287,727,134	117,727,134	0	3,748,146	0	0	287,727,134	117,727,134	0	0	0	0
BB+	222,581,368	91,071,934	0	3,748,146	848,637	848,637	222,581,368	91,071,934	0	0	0	0
BB	143,863,567	58,863,567	0	3,748,146	1,874,073	1,874,073	143,863,567	58,863,567	0	0	0	0
BB-	88,035,914	36,020,989	38,851,752	3,748,146	2,601,325	41,453,077	88,035,914	36,020,989	0	0	0	0
B+	43,691,898	17,877,083	83,195,768	3,748,146	3,178,983	86,374,751	43,691,898	17,877,083	42,626,242	0	0	42,626,242
B	18,844,748	7,710,563	108,042,918	3,748,146	3,502,660	111,545,578	18,844,748	7,710,563	67,473,392	0	0	67,473,392
B-	11,964,313	4,895,347	114,923,353	3,748,146	3,592,290	118,515,643	11,964,313	4,895,347	74,353,827	0	0	74,353,827
CCC/C	4,216,159	1,725,094	122,671,507	3,748,146	3,693,223	126,364,730	4,216,159	1,725,094	82,101,981	0	0	82,101,981

Table A4: Credit Support Requirements under 44.1% and 30% Market shares where both scenarios are indexed to an A- benchmark over an 8 week period

	44.1% Market Share of Largest retailer						30% Market Share of Largest retailer					
Rating	**CA (A-)**	**Concentration**	**Credit Support with no Concentration Limit**	**Market share premium**	**Concentration Premium**	**Sum**	**CA (A-)**	**Concentration**	**Credit Support with no Concentration Limit**	**Market share premium**	**Concentration Premium**	**Sum**
AA	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
A	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
A-	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
BBB+	243,721,808	99,721,808	0	5,997,033	2,822,133	2,822,133	243,721,808	99,721,808	0	0	0	0
BBB	172,636,280	70,636,280	30,383,985	5,997,033	3,748,146	34,132,131	172,636,280	70,636,280	0	0	0	0
BBB-	101,055,384	41,348,067	101,964,882	5,997,033	4,680,611	106,645,493	101,055,384	41,348,067	37,053,641	0	0	37,053,641
BB+	78,174,919	31,986,240	124,845,346	5,997,033	4,978,669	129,824,015	78,174,919	31,986,240	59,934,105	0	0	59,934,105
BB	50,527,692	20,674,033	152,492,574	5,997,033	5,338,822	157,831,396	50,527,692	20,674,033	87,581,332	0	0	87,581,332
BB-	30,919,931	12,651,274	172,100,335	5,997,033	5,594,247	177,694,582	30,919,931	12,651,274	107,189,093	0	0	107,189,093
B+	15,345,447	6,278,780	187,674,819	5,997,033	5,797,132	193,471,951	15,345,447	6,278,780	122,763,577	0	0	122,763,577
B	6,618,643	2,708,100	196,401,622	5,997,033	5,910,814	202,312,436	6,618,643	2,708,100	131,490,381	0	0	131,490,381
B-	4,202,100	1,719,342	198,818,166	5,997,033	5,942,293	204,760,459	4,202,100	1,719,342	133,906,924	0	0	133,906,924
CCC/C	1,480,797	605,887	201,539,468	5,997,033	5,977,743	207,517,211	1,480,797	605,887	136,628,227	0	0	136,628,227

Table A5: Credit Support Requirements under 44.1% and 30% Market shares where both scenarios are indexed to a BBB- benchmark over an 8 week period

	44.1% Market Share of Largest retailer						30% Market Share of Largest retailer					
Rating	**CA (BBB-)**	**Concentration**	**Credit Support with no Concentration Limit**	**Market share premium**	**Concentration Premium**	**Sum**	**CA (BBB-)**	**Concentration**	**Credit Support with no Concentration Limit**	**Market share premium**	**Concentration Premium**	**Sum**
AA	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
A	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
A-	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
BBB+	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
BBB	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
BBB-	460,363,414	188,363,414	0	5,997,033	0	0	460,363,414	188,363,414	0	0	0	0
BB+	356,130,188	145,715,094	0	5,997,033	1,357,819	1,357,819	356,130,188	145,715,094	0	0	0	0
BB	230,181,707	94,181,707	0	5,997,033	2,998,516	2,998,516	230,181,707	94,181,707	0	0	0	0
BB-	140,857,463	57,633,582	62,162,803	5,997,033	4,162,120	66,324,923	140,857,463	57,633,582	0	0	0	0
B+	69,907,037	28,603,333	133,113,229	5,997,033	5,086,372	138,199,601	69,907,037	28,603,333	68,201,987	0	0	68,201,987
B	30,151,597	12,336,901	172,868,668	5,997,033	5,604,256	178,472,924	30,151,597	12,336,901	107,957,427	0	0	107,957,427
B-	19,142,901	7,832,556	183,877,365	5,997,033	5,747,663	189,625,028	19,142,901	7,832,556	118,966,124	0	0	118,966,124
CCC/C	6,745,854	2,760,150	196,274,412	5,997,033	5,909,157	202,183,569	6,745,854	2,760,150	131,363,170	0	0	131,363,170