

26 October 2015

Mr Peter Rose
Chief Executive Officer
Southern Response Earthquake Services Ltd
10 Show Place
Christchurch 8149
NEW ZEALAND

Dear Peter

Earthquake Claim Liabilities as at 30 September 2015

We have been asked by Southern Response Earthquake Services Limited ("SRES") to make an assessment of its insurance liabilities as at 30 September 2015. SRES is the Crown-owned entity which emerged from a transaction whereby, with effect from 5 April 2012, the ongoing business of AMI Insurance Limited ("AMI") was separated from the existing AMI entity and sold to Insurance Australia Group.

The purpose of this letter is to provide an estimate of the earthquake claim liabilities for Southern Response Earthquake Services Limited ("SRES") as at 30 September 2015. This valuation is predominantly based on a roll forward of our 30 June 2015 valuation with changes to valuation assumptions where emerging experience, or new information in respect of emerging issues, suggests changes are appropriate. We include commentary on the key changes to assumptions later in this letter.

This letter does not deal with the other non-earthquake retained events that were transferred from AMI Insurance Limited to SRES at the close of business on 5 April 2012.

Summary of Results

Table 1 summarises our estimates of SRES' earthquake liabilities at 30 September 2015. The line below the table indicates our estimate of the total amount which will be ultimately paid once all claims are settled (including payments already made but excluding SRES CHE expenses). This represents our central estimate of the ultimate liability. Our recommended provisions incorporate a risk margin which we believe to be consistent with the requirements to establish provisions which incorporate at least a 75% probability of sufficiency.

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Table 1 – Recommended EQ Provisions at 30 September 2015

Provisions for Outstanding Claims as at 30 Sep 2015	Cat 93	Cat 106	Cat 112	Total		
	4-Sep-10	22-Feb-11	13-Jun-11	Major	Minor	Overall
	\$m	\$m	\$m	\$m	\$m	\$m
Gross Incurred Cost in 30 Sep \$ before EQC	1,149.5	2,374.8	94.9	3,619.3	39.5	3,658.7
Expected EQC Share	-340.7	-580.8	-38.7	-960.2	-8.0	-968.3
Gross Incurred Cost in 30 Sep \$ after EQC	808.8	1,794.0	56.2	2,659.0	31.4	2,690.4
less paid to 30 Sep 2015	-545.4	-1,172.8	-46.1	-1,764.2	-26.4	-1,790.6
Gross Outstanding Claims						
In 30 Sep 2015 Values	263.4	621.2	10.1	894.8	5.0	899.8
Allowance for Future Inflation	12.1	25.2	1.0	38.3	0.3	38.5
Inflated Values	275.5	646.4	11.1	933.0	5.3	938.3
Discount to Present Value	-7.4	-17.7	-0.3	-25.4	-0.1	-25.5
OSC Discounted to 30 Sep 2015	268.1	628.7	10.8	907.7	5.2	912.8
Claims Handling						
Gross Central Estimate						
Catastrophe R/I Recoveries	-54.4	0.0	-10.8	-65.2	-3.9	-69.1
Aggregate R/I Recoveries	0.0	0.0	0.0	0.0	0.0	0.0
Net Central Estimate	226.2	657.9	0.5	884.6	1.5	886.0
Risk Margin						
Recommended provision						
Inflated Gross Central Estimate (Incl paid to date, excl CHE)	821	1,819	57	2,697	32	2,729.0
Change on 30 Jun 2015 Valuation	19	-8	0	12	1	13

Our central estimate of the gross inflated ultimate cost at 30 September 2015 is \$13 million higher than our 30 June 2015 estimate. The key movements from 30 June 2015 are summarised in Figure 1.

Figure 1 – Movements in Inflated Gross Central Estimate



The major drivers of the movements in the central estimate are described further in Table 2:

Table 2 – Explanation of Movements in Inflated Gross Central Estimate

	Traffic Light	Notes	Mov't from Jun-15
New Overcaps (Numbers)	●	Net new overcap reports have been higher than expected in June and July but have dropped below expectations in August and September. As a result, our view of the ultimate number of over cap properties is unchanged.	\$1M
New Overcaps (Sizes)	●	New Overcap sizes have been stable and in line with expectations in the most recent quarter. Interestingly, the impact of the new repair strategy (expected to increase the initial DRA size as engineering is completed upfront) has been masked by the size and sum insured of late reported properties trending down (sensible given the delay in EQC confirming these as overcap).	\$0M
Size Development (Rebuilds)	●	Rebuild size movements in the latest quarter have been lower than what was assumed in our valuation basis	-\$14M
Size Development (Repairs)	●	Repair scope increases have come down in the most recent quarter - as jobs with their engineering done upfront have now begun to reach the RFP stage. Scope increases on these properties have been significantly lower than properties with older DRAs. We have recognised the majority of this in the valuation basis but haven't fully reflected the most recent experience as there is still some uncertainty around how properties under the new process will develop. The lower scope increases have been slightly offset by an increase in contract variations (but volumes are low at this stage).	-\$13M
Cash Settlements	●	In the most recent quarter cash settlements have come in approximately 5% above their DRA value. This is mostly driven by SRES meeting additional costs above what was in the DRA during the cash settlement process. Following the Avonside decision we had previously assumed there would be no difference between the DRA and the cash settlement.	\$24M
Throughput	●	Throughput progress in the last three months has been a little slower than expected - driven mostly by repair phase 4 (RFP sent to contract submitted). Group home builds have performed a little better than expected. There has however been a high level of payments made in the September quarter - particularly from cash settlements - which has partially offset the impact of the slowdown in repairs.	\$2M
Out of Scope	●	Recent revisions to budgets for OOS only claims were higher than expected. A number of these claims were "on hold" (awaiting completion of undercap EQC repairs) previously due to the complexity of the claim and TC3 land conditions. These have recently been reassessed, leading to increased claim sizes.	\$6M
Minor Classes	●	Contents claim lodgements have continued to come in strongly and we have responded by increasing the number of future claim lodgements. We have aligned these with the projected construction starts from Proteus as we are seeing a strong correlation between the two.	\$5M
Other Movements	●	Includes Escalation, EQC contributions, Enhanced foundation costs and project management costs	\$2M
Total Inflated Ultimate Cost			\$13M

Table 3 shows the main components of cost underpinning our overall estimate of SRES' ultimate earthquake liabilities.

Table 3 – Estimated Ultimate EQ Liabilities at 30 September 2015

	30 Jun 15	30 Sep 15	Mov't Jun15 to Sep15
	\$m	\$m	\$m
Ultimate Outflows			
Over Cap	3,025	3,026	0
Out of Scope	308	314	6
Other	157	162	5
Claims Cost (Excl PM Cost)	3,491	3,502	11
Project Management Costs	█	█	█
SRES Claims Handling	█	█	█
Ultimate Inflows			
EQC Contributions	971	971	1
Reinsurance Recoveries	1,246	1,246	0
	2,217	2,217	0
Net Outflow (net of RI)	█	█	█
Cum. Paid Net of EQC (excl CHE)	1,616	1,791	175
Discounted Net Liability			
Central Estimate	999	886	-113
Risk Margin	█	█	█
Recommended Provision	█	█	█

Key Observations

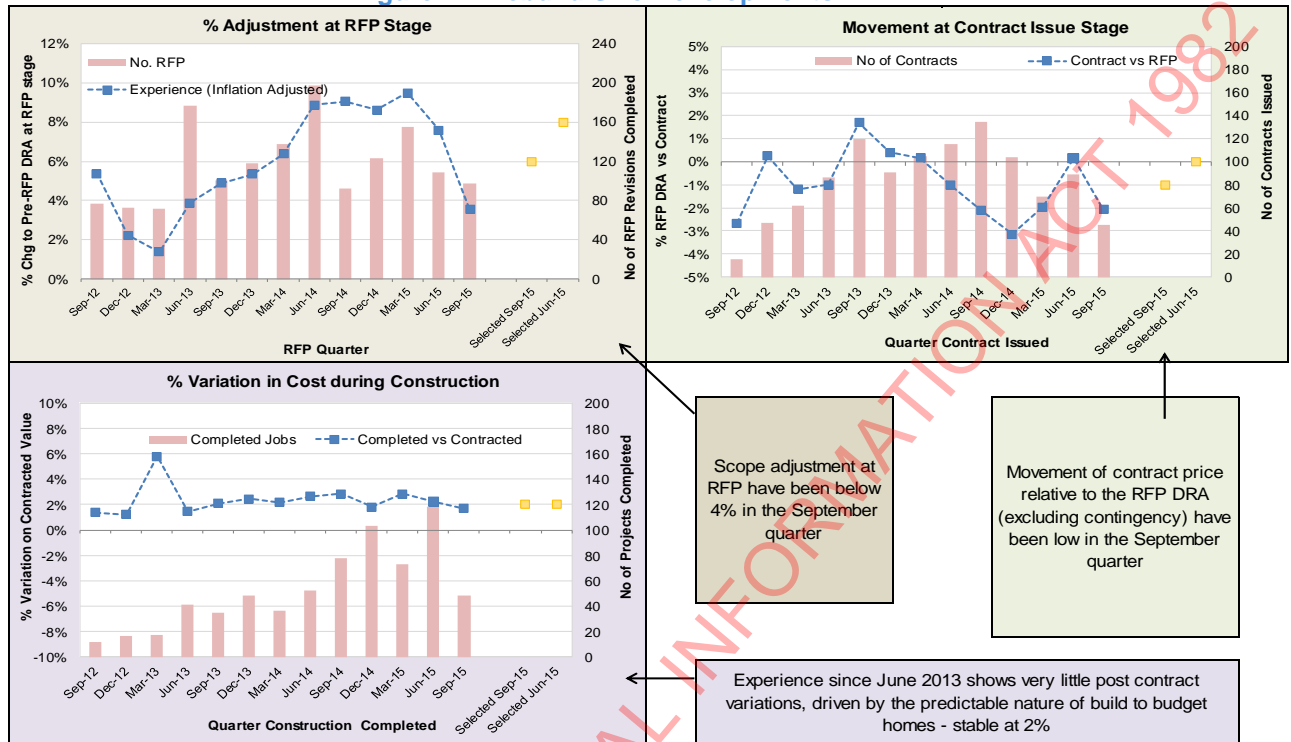
In this section we provide further detail around the key movements (more than \$10M) in the valuation during the quarter.

Rebuilds

Our assessment of Over Cap average claim size is based primarily on Arrow's assessed costs. We then assess the adequacy of the DRA estimates against the emerging experience to make adjustments to the DRA estimates where appropriate. For the details of this process we refer the reader to our 30 June 2015 valuation report.

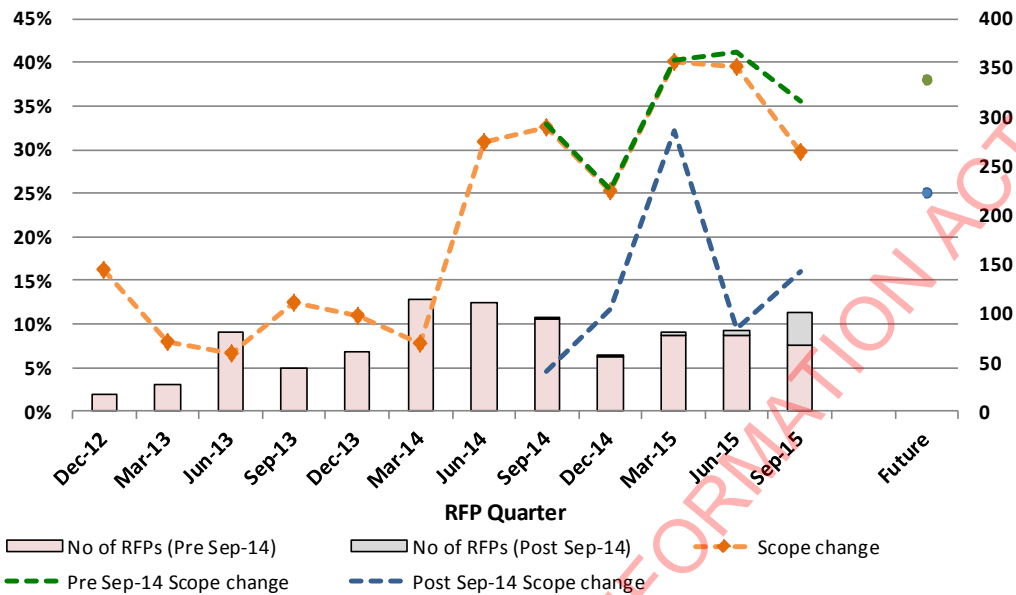
Rebuilds have had less development in each of the key phases than expected in the valuation basis as shown in Figure 2.



Figure 2 – Rebuild Size Developments


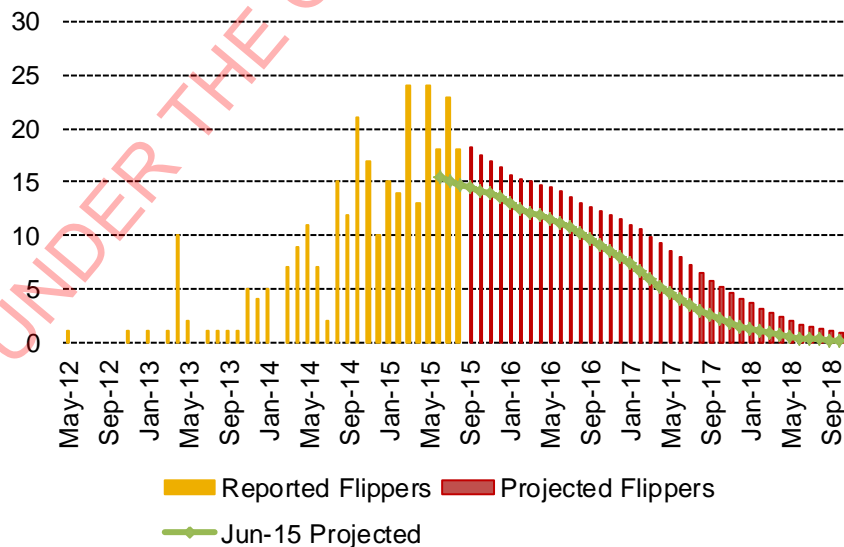
Repairs

Towards the end of 2014, Arrow changed their approach to assessing repair properties by completing engineering scoping upfront in an attempt to gain a better understanding of the engineering requirement of the property earlier in the process. In the latest quarter we have begun to see some of these properties reach the RFP stage and have observed that these properties have smaller scope revisions than properties completed on the old process (blue vs. green line in Figure 3). In response to this, but noting that volumes are still very low, we have reduced our expected revision for future properties under the new process by partially reflecting the recent experience. Figure 3 shows the experience and our assumptions for the future.

Figure 3 – Scope Change at Repair RFP for Repairs


Cash Settlements

Following the 'Avonside' decision, there has been an increased proportion of customers choosing a cash settlement decision and switching from an arrow managed rebuild or repair to a cash settlement option ('flippers') in the latest quarter. As a result, we have increased our expectations for future 'flippers' as shown in Figure 4.

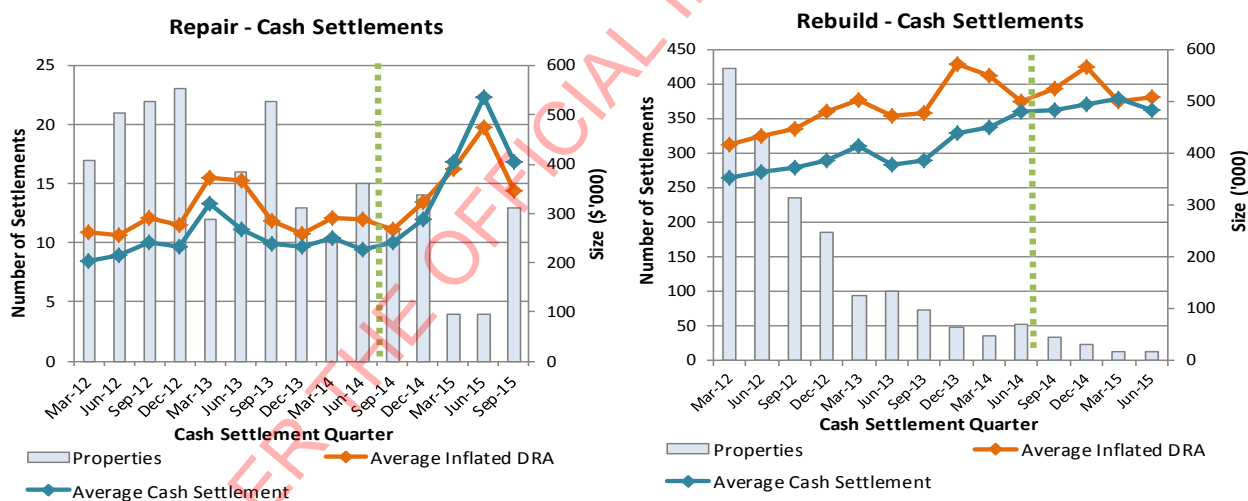
Figure 4 – Projected future flippers


This has resulted in a higher number of properties ultimately choosing a cash settlement option as shown in Table 4.

Table 4 – Ultimate Claim Numbers Breakdown

Properties with Buildings Claims	All Events Combined		
	Jun-15	Sep-15	Movt from Jun15
Ultimate No with Over cap damage	7,779	7,785	6
Arrow Managed			
- Rebuild	2,019	1,987	-32
- Repair	1,730	1,539	-190
	3,748	3,526	-222
Cash Settlements	4,031	4,259	228

Additionally, there has been an increase in the cash settlement size relative to the DRA as some additional costs above what was in the DRA have been met. As shown in Figure 5, repair cash settlements are now finalising for higher amounts than their DRA estimates and rebuild cash settlements are finalising in line with their DRA estimates.

Figure 5 – Cash Settlements relative to DRA Estimates


This higher cash settlement size has led to an increase of \$24 million on the higher cash settlement volume.

Uncertainty of our Estimates

It should be noted that considerable uncertainty still surrounds the projection and valuation of SRES' EQ liabilities. While SRES has progressed most of the way through the damage assessment phase, a large proportion of the overall incurred cost is yet to be settled. In addition, the run-off is exposed to a higher level of variability in claims experience than a typical residential property run-off portfolio. As the claim settlement process has progressed, a greater proportion of outstanding claims liability relates to more complex claims, meaning the uncertainty around future

settlement outcomes for outstanding claims is magnified (as compared to 'normal' residential property claims).

Our view on the key areas of uncertainty is unchanged from our June valuation. There are four areas where we believe there is a higher than normal level of uncertainty attaching to the assumptions underpinning our valuation:

- Repair Costs – High levels of volatility in scope creep over the past year and the increased complexity of jobs yet to be completed mean there is a reasonable risk the average repair size could continue to change
- Multi-Unit Buildings – With only a handful of these properties completed to date, there is little information on which to base our average size assumption
- Throughput Delays – There is a risk that the recent deterioration in delays will continue into the future as the outstanding jobs increase in complexity
- Enhanced Foundations – there remains some uncertainty as to the eventual cost of enhanced foundations in TC3 and TC2 properties, and the extent of land remediation compensation SRES will receive from the EQC in respect of these issues, detailed in Attachment A.

In response to the inherent uncertainties, we have maintained our risk margin at 10% of the estimated liability (net of EQC contributions but gross of reinsurance recoveries). Under accounting standards, in response to the inherent uncertainty, it is expected that provisions will contain a margin sufficient to produce at least a 75% probability of sufficiency.

While the unique nature of the Canterbury events makes it impossible to derive with any accuracy a precise probability for various levels of risk margin, we are of the view that the margin adopted is sufficient to produce a probability of sufficiency of at least 75%.

Reliances and Limitations

This letter has been prepared for the use of SRES for the stated purpose. We understand that a copy of the letter may be provided to the Board of SRES. No other use of, nor reference to, our letter other than as required by the Crown, should be made without prior written consent from Finity, nor should the whole or part of our letter be disclosed to any unauthorised person.

Third parties, whether authorised or not to receive this letter, should recognise that Finity will not be liable for any losses or damages howsoever incurred by the third party as a result of them receiving, acting upon or relying upon any information or advice contained in the report.

Our letter should be considered as a whole. Members of Finity staff are available to answer any queries, and the reader should seek that advice before drawing conclusions on any issue in doubt.

Yours sincerely

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[REDACTED]

**Fellows of the New Zealand Society of Actuaries
Fellows of the Institute of Actuaries of Australia**

[REDACTED]

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A Other Areas

Enhanced Foundation Costs

There remains uncertainty in regard to the division of responsibility (between EQC and the private insurers) for the costs involved in remediating land to a standard suitable for building on, particularly in TC3. As part of our analysis for flood-prone properties completed prior to the declaratory judgement on increased flood vulnerability, information received from the EQC regarding land damage classifications suggested there might be around 300 properties exposed to increased liquefaction vulnerability, and SRES would be eligible to receive compensation from the EQC for the cost of enhanced foundations. This is unchanged from our June valuation.

Assuming SRES is able to recover the full cost of the enhanced foundations for these properties (around \$50k per property), SRES can expect to recover around \$15 million in land damage. Our valuation basis assumes recoveries of around \$15 million in respect of enhanced foundation costs. The actual outcome will depend upon the terms ultimately negotiated with customers and the EQC.

Yield Curve

The yield curve has seen a downwards shift in latest quarter, as seen in Figure 6. This has increased the discounted provisions by \$4 million.

Figure 6 - New Zealand Treasury Zero Coupon Yield Curve

