

27 January 2017

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

Dear Peter

Earthquake Claim Liabilities as at 31 December 2016

We have been asked by Southern Response Earthquake Services Limited ("SRES") to make an assessment of its insurance liabilities as at 31 December 2016. 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 set out our assessment of the earthquake claim liabilities for Southern Response Earthquake Services Limited ("SRES") as at 31 December 2016. This assessment follows on from the update we provided as at 30 September 2016 and is based on the full valuation undertaken at 30 June 2016 but with key assumptions updated to reflect the experience which has emerged in the period since 30 June 2016. 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 retained by SRES following the transaction on 5 April 2012.

Summary of Results

Table 1 summarises our estimates of SRES' earthquake liabilities at 31 December 2016. 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 31 December 2016

Provisions for Outstanding Claims as at 31 Dec 2016	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 31 Dec \$ before EQC	1,211.4	2,820.1	111.3	4,142.8	45.1	4,188.0
Expected EQC Share	-339.8	-651.1	-34.1	-1,025.0	-5.1	-1,030.2
Gross Incurred Cost in 31 Dec \$ after EQC	871.6	2,169.0	77.2	3,117.8	40.0	3,157.8
less paid to 31 Dec 2016	-688.3	-1,709.6	-71.5	-2,469.4	-34.8	-2,504.2
Gross Outstanding Claims						
In 31 Dec 2016 Values	183.3	459.3	5.7	648.4	5.2	653.6
Allowance for Future Inflation	4.5	8.7	0.3	13.5	1.1	14.6
Inflated Values	187.8	468.0	6.1	661.8	6.4	668.2
Discount to Present Value	-2.8	-6.6	-0.1	-9.4	-0.1	-9.5
OSC Discounted to 31 Dec 2016	185.0	461.5	6.0	652.5	6.3	658.7
Claims Handling						
Gross Central Estimate						
Catastrophe R/I Recoveries	0.0	0.0	-6.0	-6.0	-1.6	-7.6
Aggregate R/I Recoveries	0.0	0.0	0.0	0.0	0.0	0.0
Net Central Estimate						
Risk Margin						
Recommended provision						
Inflated Gross Central Estimate (Incl paid to date, excl CHE)	876	2,178	78	3,131	41	3,172.4
Change on 30 Sep 2016 Valuation	45	138	4	187	2	189
Change on 30 Jun 2016 Valuation	65	193	9	267	2	269

Our central estimate of the gross inflated ultimate cost excluding CHE at 31 December 2016 is \$189m higher than our 30 September 2016 estimate. Table 2 shows the main components of cost underpinning our overall estimate of SRES' ultimate earthquake liabilities.

Table 2 – Estimated Ultimate EQ Liabilities at 31 December 2016

	30 Sep 16	31 Dec 16	Mov't Sep16 to Dec16
	\$m	\$m	\$m
Ultimate Outflows			
Over Cap	3,301	3,501	200
Out of Scope	338	339	0
Other	153	158	5
Claims Cost (Excl PM Cost)	3,793	3,998	205
Project Management Costs			
SRES Claims Handling			
Ultimate Inflows			
EQC Contributions	1,008	1,030	23
Reinsurance Recoveries	1,264	1,269	5
	2,272	2,300	27
Net Outflow (net of RI)			
Cum. Paid Net of EQC (excl CHE)	2,345	2,504	160
Discounted Net Liability			
Central Estimate	659	687	27
Risk Margin			
Recommended Provision			

The major drivers of the movements in the central estimate are described in Table 3.

Table 3 – Summary of Key Movements in Estimates

	Traffic Light	Notes	Mov't from Sep-16
New Over Caps	●	The volume of new Over Caps reported from EQC has continued to persist in the last quarter. The basis we have adopted assumes this pattern will continue for most of 2017.	\$98M
Rebuild Size	●	Ultimate average claim values for repairs and rebuilds has been increased in response to an increased proportion of properties experiencing escalation in a number of areas (design, land remediation, contaminated land etc.). As the managed program comes to a close, the properties still to be settled are increasingly those with significant complexities and have experienced higher variations during the construction phase.	\$24M
Repair Size	●		\$33M
Cash Settlements	●	Basis adjusted to reflect increasing proportion of claims with complex issues and to align settlement outcomes for both Arrow managed and cash settled properties	\$18M
Out of Scope and Minor Classes	●	The higher number of future Over Cap claims from the EQC is likely to have flow on effects to Temporary Accommodation, Lost Rent and Contents claim numbers.	\$5M
Project Management and Legal Costs	●	Project Management and Legal costs have increased to reflect the higher number of Over Cap claims to be settled and the ensuing extension of timelines.	\$11M
Other Movements	●	Minor contributions from escalation, throughput, EQC contributions and Enhanced foundations.	\$0M
Inflated Ultimate Excluding SRES Claims Handling			\$189M
SRES Claims Handling	●	SRES' claims handling expense (CHE) forecasts have increased by ■ million, largely due to a slow down in staff run-down to cater for the higher number of Over Cap properties.	■
Inflated Ultimate			■

● Higher than previous valuation
● In line with previous valuation
● Better than previous valuation

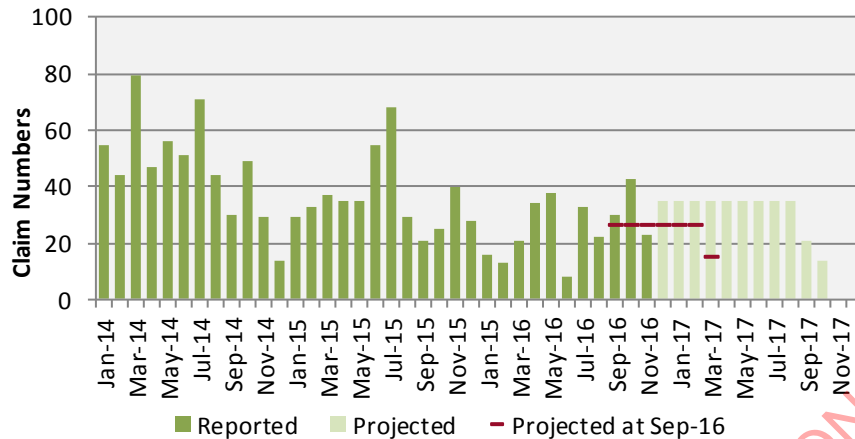
9(2)(i)

Key Observations

In this section we provide further detail around the key movements in the valuation during the quarter.

Over Cap Claim Numbers

The flow of new Over Cap claims from EQC in the last three months has continued to exceed expectations. The latest information supplied by EQC, together with some other estimates made by the insurance industry, leads us to believe that this flow of new claims is likely to persist well into 2017. On this basis, we have revised our projections to incorporate an additional 273 new Over Cap properties on top of the allowance made in the September 2016 valuation (see Figure 1).

Figure 1 – New Over Cap Numbers


We have also increased the average claim value for these new Over Cap lodgements from [REDACTED] 9(2)(i) and (net of EQC contributions) last quarter to [REDACTED]. The increase in average claims value reflects the escalation we have seen more generally in both repair and rebuild costs (see below for commentary on this aspect).

The total impact of the increase in number and value of new Over Caps has added \$98m to SRES' ultimate liability.

Table 4 shows our assessment of the breakdown of Over Cap claims by current status as reflected in our actuarial database.

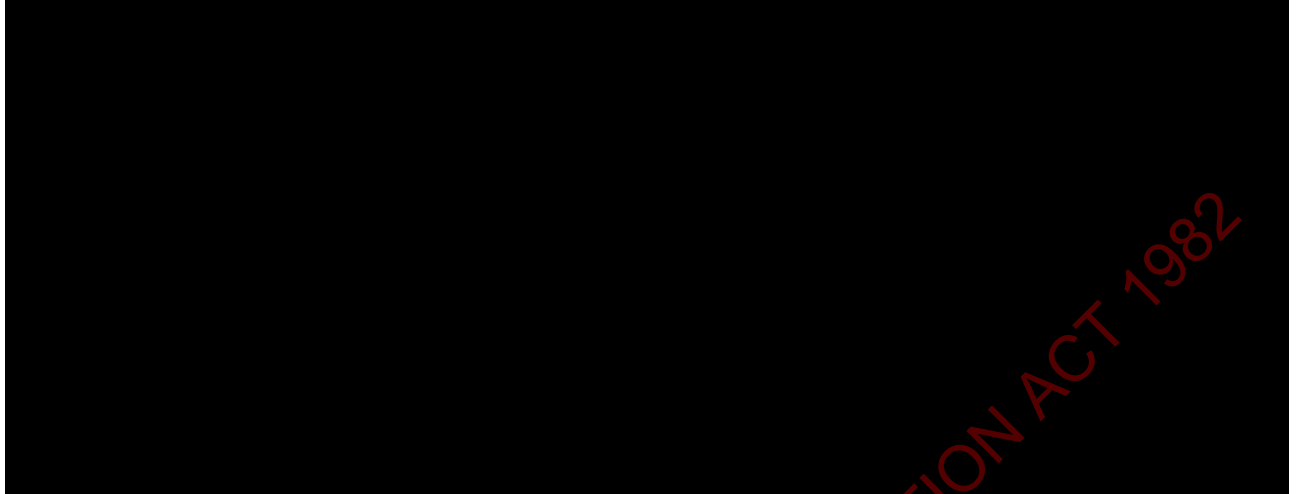
Table 4 – Ultimate Claim Numbers Breakdown

Current Status	Dec-16			Sep-16
	Rebuild	Repair	Total	Total
Future Assessments	143	386	529	332
Open Claims	714	813	1,527	1,714
Completed Claims				
- Arrow Managed	1,211	644	1,855	1,737
- Cash Settled	3,263	1,220	4,483	4,338
Total	5,331	3,063	8,394	8,121

Average Claim Value

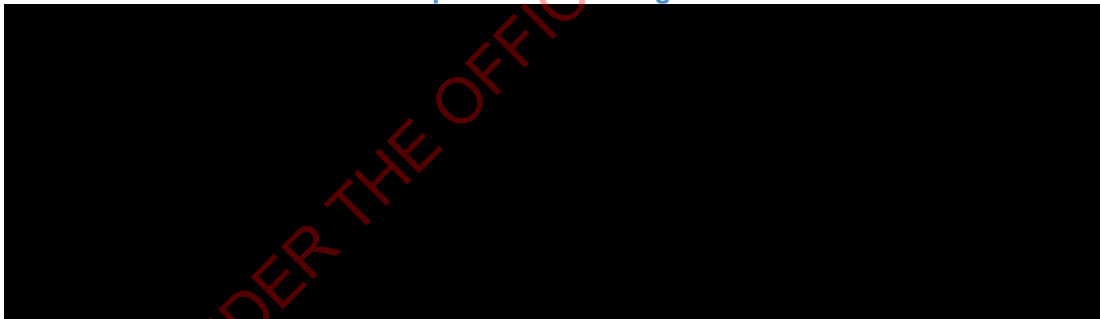
A detailed analysis of trends in how the costs of rebuilds and repairs have been developing has indicated that as SRES and Arrow move "deeper" into the tail, the proportion of outstanding claims involving complex issues is increasing. This is manifesting itself in the emergence of a range of higher costs for elements which cannot be readily foreseen when initial and preliminary estimates are generated. These costs are emerging during the scoping, design and construction phases. Figure 2 provides an indication of the impact that these elements have had in recent quarters.

Figure 2 – Movements from RFP DRA to Completion due to Complex Issues 9(2)(i) and 9(2)(j)



In response to these trends, we have revised our assumed average claim values for open claims, as detailed in Table 5. Consistent with the likelihood that most properties for which a settlement option has yet to be made will be cash settled, we have also modified our valuation approach to align settlement outcomes irrespective of whether the property is Arrow-managed or cash settled. This approach is also consistent with some high level testing which indicated that the development of estimates is similar for the two settlement streams.

Table 5 – Adopted Gross Average Claim Value 9(2)(i) and 9(2)(j)



The overall impact of our revised value assumptions is to add \$57m to SRES' liability (\$26m for Rebuilds and \$31m for Repairs). The change to our basis for valuing cash settlements adds \$18m.

Other Relevant Matters

'Wash Up' between SRES and the EQC

As in recent valuations, we have assumed that the financial impact of the various "wash up" related issues between SRES and EQC will be largely offsetting. We understand that it will be later in 2017 before material progress is likely to be achieved in firming up an agreed position on these issues.

SRES Class Action

We note that late in December, 2016 the High Court ruled in favour of the Southern Response Unresolved Claims Group proceeding with its class action. For this valuation, we have not made any attempt to assess whether this decision is likely to have a material effect on SRES liabilities.

Uncertainty of our Estimates

It should be noted that considerable uncertainty still surrounds the projection and valuation of SRES' EQ liabilities. 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, an increasing proportion of SRES' outstanding claims relates to more complex claims, meaning the uncertainty around future settlement outcomes for outstanding claims is magnified (as compared to 'normal' residential property claims).

Unchanged from our June and September valuations, we have set our risk margin at ■% of the estimated liability (net of EQC contributions but gross of reinsurance recoveries) which maintains SRES' approach of its provisions containing a margin sufficient to produce at least a 75% probability of sufficiency. 9(2)(i)

In our view, there remain two key areas of uncertainty which could result in material adjustments to the ultimate outcome for SRES' remaining claims:

- the volume of future new Over Cap claims which might emerge
- further escalation in the 'unforeseeable' cost components

New Over Cap Claims

Our valuation at December 2016 allows for \$120m of additional Over Cap claims to emerge from EQC finalising its claims. While our estimate has been based on the results obtained from a variety of methods, our estimate of this liability remains quite uncertain. Efforts being taken by SRES to identify itself those EQC matters from which such claims might emerge should assist in reducing the uncertainty attaching to this part of the overall liability.

Escalation in "unforeseeable" Cost Components

A major contributor to the increased average claim values allowed for in this valuation relates to elements which are difficult to estimate accurately early on or which only emerge during the construction phase. Approximately \$70m of SRES' outstanding cost can be attributed to these components. The valuation currently assumes that the future experience will be similar to the most recent quarter's experience. Hence, there is the risk that, for the remaining properties, the cost of these elements is materially higher than that recently experienced.

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

A handwritten signature in black ink, appearing to read 'Colin Brigstock'.

Colin Brigstock

A handwritten signature in black ink, appearing to read 'Stephen Lau'.

Stephen Lau

Fellows of the New Zealand Society of Actuaries

Fellows of the Institute of Actuaries of Australia