

23 October 2013

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

Dear Peter

#### Earthquake Claim Liabilities as at 30 September 2013

We have been asked by Southern Response Earthquake Services Limited ("SRES") to make an assessment of its insurance liabilities as at 30 September 2013. 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 2013. This valuation is predominantly based on a roll forward of our 30 June 2013 valuation, with some changes to valuation assumptions where emerging experience, or new information in respect of emerging issues, suggests changes are appropriate.

We understand that this advice will be used by SRES in preparing its management accounts. 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 2013. 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 which is recoverable under SRES's reinsurance treaties. 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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#### withheld pursuant to section (9)(2)(b)(ii)

Table 1 - Recommended EQ Provisions at 30 September 2013

Provisions for Outstanding Claims as at	Cat 93	Cat 106	Cat 112		Total	
Provisions for Outstanding Claims as at	4-Sep-10	22-Feb-11	13-Jun-11	Major	Minor	Overall
30 Sep 2013	\$m	\$m	\$m	\$m	\$m	\$m
Gross Incurred Cost in 30 Sep \$ before EQC	898.0	1,939.3	84.5	2,921.8	42.8	2,964.7
Expected EQC Share	-304.5	-517.8	-32.9	-855.2	-10.7	-865.9
Gross Incurred Cost in 30 Sep \$ after EQC	593.6	1,421.5	51.6	2,066.7	32.1	2,098.8
less paid to 30 Sep 2013	-317.0	-408.1	-11.5	-736.5	-10.4	-746.9
Gross Outstanding Claims						
In 30 Sep 2013 Values	276.6	1,013.4	40.1	1,330.2	21.7	1,351.9
Allowance for Future Inflation	32.3	117.0	5.3	154.7	2.7	157.4
Inflated Values	308.9	1,130.5	45.4	1,484.8	24.5	1,509.3
Discount to Present Value	-10.5	-45.2	-1.5	-57.2	-0.8	-58.0
OSC Discounted to 30 Sep 2013	298.5	1,085.2	43.9	1,427.6	23.7	1,451.3
Claims Handling						
Gross Central Estimate						
Catastrophe R/I Recoveries	-275.5	-191.1	-42.3	-508.9	-15.3	-524.2
Aggregate R/I Recoveries	0.0	0.0	0.0	0.0	0.0	0.0
Net Central Estimate	36.7	943.7	3.6	984.0	9.5	993.5
Risk Margin						
Recommended provision	_					
Inflated Gross Central Estimate (Incl paid to date, excl CHE)	626	1,539	2 57	2,221	35	2,256
Change on 30 Jun 2013 Valuation	2	26	-23	5	-4	1

There has been virtually no change in the central estimate of the gross inflated ultimate cost (\$2,256 million) since 30 June 2013. This is an outworking of a number of minor offsetting changes to the assumptions.

The main change since 30 June 2013 affecting the provision is a reallocation of costs from the June event to the February event. This reflects some changes to the methodology underlying the apportionment estimates. In determining the eventual allocation across all 6,900 over cap properties at June 2013, some credibility had been placed on Arrow's event splits for unendorsed properties. The emerging experience does not appear to support this approach.

Therefore, for this valuation we have modified our approach so that we are solely using the apportionment experience for endorsed properties in estimating the ultimate apportionment of cost across the events (although we allow for differences in mix in the endorsed properties compared to those yet to be endorsed).

Table 2 shows the main components of cost underpinning our overall estimate of SRES' ultimate earthquake liabilities.





Table 2 – Estimated Ultimate EQ Liabilities at 30 September 2013

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	30 Jun 13	30 Sep 13	Mov't from Jun 13	
	\$m	\$m	\$m	
Ultimate Outflows				
Over Cap	2,558	2,578	20	
Out of Scope	288	274	-14	
Other	147	149	2	
Claims Cost (Excl Arrow)	2,993	3,001	8	
				al al
Arrow's Costs			•	100
SRES Claims Handling	127	124	-3/	
Ultimate Inflows			. >	
EQC Contributions	872	879	7	
Reinsurance Recoveries	1,274	1,250	-24	
	2,146	2,129	-17	
Gross Outflow (net EQC, ex CHE)	2,255	2,256	1	
Net Outflow (net of RI)	2,233	2,250		
not Camon (not or m)		, O		
Gross Cum. paid (excl CHE)		X		
Paid to Claimants	734	837	103	
	No.			
Net Liability	CIL			
Central Estimate	974	994	19	
Risk Margin				
Provision Required				

withheld pursuant to section (9)(2)(b)(ii)

The ultimate cost of claims (gross of EQC) has increased by \$1 million before reinsurance and \$27 million after reinsurance and EQC recoveries.

## **Key Observations**

There has been virtually no increase in the estimated gross liabilities; however, the reallocation of costs from the June event to February (for which there is no reinsurance cover remaining) means the estimated net ultimate claims costs have increased by \$27 million. The release of the risk margin for payments made in the quarter, and a small increase in the discount rate offset some of this increase, such that the provision has only increased by \$14 million.

We note that there were a number of minor movements to the underlying assumptions which were ultimately offsetting. The key changes were as follows –

#### Over Cap

The estimate of Over Cap claim inflated costs has increased by around \$20 million since June 2013.

Changes contributing to the increase are as follows -



- An additional 70 over cap claims expected (compared to June 2013). The trickle through of Over Cap DRAs has been a bit stronger in recent months, and will be linked to the EQC ramping up its settlement process.
- Including an allowance of million in enhanced foundation costs for TC2 properties (currently no allowance in the DRAs)
- An assumed net saving of million in respect of TC3 foundations (relative to allowances in DRAs). We discuss the details in respect of enhanced foundation costs later in this letter.
- An increase in the expected cost of settling with CERA Government Option 1 properties.

  These were previously expected to be settled at indemnity value (which is lower than the DRA value). We understand SRES is now offering to settle on the basis of the DRAs, and we have reflected this settlement basis in the valuation.
- An allowance of million for legal costs expected to be incurred by SRES as a result of claim disputes with customers.

withheld pursuant to section (9)(2)(b)(ii)

These increases were partly offset by -

- An increased proportion of cash settlements assumed
- A small shift in the mix of damaged properties away from rebuilds towards repairs (which have a smaller size)
- Some technical changes to the estimation of claim sizes for customers that have already agreed cash settlements resulting in a reduction in the assumed average size for cash settled properties.

#### Out of Scope (OOS)

The estimate of OOS claim inflated costs has decreased by around million since June 2013.

While there was virtually no change in the ultimate number of OOS properties estimated the estimated average size reduced as a result of — withheld pursuant to section (9)(2)(b)(ii)

- OOS properties settled in the quarter for less than our assumed size of \$12,000.
- Estimates for assessed but not yet settled OOS properties of \$11,500 per property, compared to an average cost per settled property to date of \$12,000. We have assumed these properties will be closed for \$11,500 (previously we assumed open properties would also settle for \$12,000).
- To the extent that some of the contingency included in the estimates for open properties may be saved, there may be a further saving on the open properties once they are settled, however we have not reflected this in the valuation basis at this stage.
- We have continued to assume properties yet to be assessed will cost \$12,000 per property (\$14,000 for Hills).



#### Other areas

There were very minor adjustments made to other claim type assumptions, virtually no change in forecast Arrow costs and a small reduction in total claims handling expenses.

#### Land Remediation and Enhanced Foundation Costs

There remains uncertainty in regard to the division of responsibility (between EQC and the private insurer) for the costs involved in remediating land to a standard suitable for building on, particularly in TC3. Based on the expected cost of the proposed enhanced foundation solutions, we expect that the current allowance in DRAs of enhanced foundation for TC3 properties costs may be understated by around \_\_\_\_\_\_.

#### withheld pursuant to clause (9)(2)(b)(ii)

However, we understand that SRES expects to receive compensation from the EQC for those properties classified as "Category 8" properties. Preliminary classifications from the EQC suggest there may be around 200 such properties. Assuming the SRES is able to recover the full cost of the enhanced foundations for these properties (around per property), SRES can expect to recover around in land damage compensation.

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The outworking of this is an estimated saving for SRES compared to the DRA estimates.

#### TC2 Foundations

We understand that a number of TC2 properties will also require enhanced foundations, due to the extent of land damage experienced for a number of the properties. The DRAs currently make no allowance for the cost of enhanced foundations for TC2 properties. We have used the FOR estimates for the TC3 properties to estimate the potential cost of enhanced foundations in TC2.

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Based on the extent of land damage across TC2 properties, we have estimated an additional cost of around in enhanced foundation costs for TC2 (above what is currently allowed for in the DRAs). This amount has been included in the valuation basis as an adjustment to the DRAs.

We have assumed none of these costs will be subject to EQC compensation for land damage.

## Uncertainty of our Estimates

It should be noted that considerable uncertainty still surrounds the projection and valuation of SRES' EQ liabilities. In this regard, some points to be noted include:

- 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
- 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
- the run-off is, of course, still exposed to the "normal" sources of variability in claims
  experience; particularly the rate of building cost escalation in Canterbury. In the case of
  Canterbury, the sheer scale of the construction programme across both residential and
  commercial sectors and the complexity introduced by the interplay with the cover provided



by EQC act to magnify the potential variability of ultimate outcomes (as compared to 'normal' residential property claims).

In response to 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 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

withheld under section 9(2)(a)

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



# Southern Response Earthquake Services

Earthquake Liabilities at 30 September 2013

18 October 2013

Withheld under section 9(2)(a)

Presented by



## **The Headline Numbers**

	30 Jun 13	30 Sep 13	Mov't from Jun 13
	\$m	\$m	\$m
Ultimate Outflows			
Over Cap	2,558	2,578	20
Out of Scope	288	274	-14 =
Other	147	149	2
Claims Cost (Excl Arrow)	2,993	3,001	8
Arrow's Costs			14
SRES Claims Handling	127	124	-3
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Ultimate Inflows			
EQC Contributions	872	879	7
Reinsurance Recoveries	1,274	1,250	-24
	2,146	2,129	-17
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Gross Outflow (net EQC, ex CHE)	2,255	2,256	<u> </u>
Net Outflow (net of RI)			
Gross Cum. paid (excl CHE)	)`		
Paid to Claimants	734	837	103
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Net Liability			
Central Estimate	974	994	19
Risk Margin			
Provision Required			

Increase in numbers offset by small reduction in average size

\$7 million allowance for legal dispute costs

Claims closed in last few months have cost a bit less than expected

More over caps projected, and therefore more EQC contributions

Withheld under section 9(2)(b)(ii)

Reduced allocation to June Event



**Buildings Cover** 

Over Cap
Out of Scope

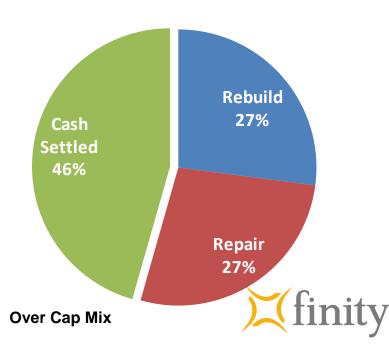
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## **Buildings – Number of Damaged Properties**

Properties with Buildings Claims	Jun-13	Sep-13	Movt from Jun13
Over Cap			
No Recorded in Data used for valuation	7,053	7,204	151
Future additions	133	79	-54
Estimated Ultimate No to be assessed	7,186	7,283	97
No assessed as under cap	-317	-344	-27
Ultimate No with Over cap damage	6,869	6,939	70
Awayy Managad			
Arrow Managed - Rebuild	1,893	1,879	-14
- Repair	1,863	1,879	34
Ropali	3,755	3,776	20
	0,700	0,7.10	(C), =
Cash Settlements	3,114	3,163	50
		$O_{Z}$	
Out of Scope Damage Only		4,	
No in Database	21,153	21,685	532
Estimated further additions	1,014	490	-525
	22,167	22,175	7
	$\bigcirc$		
Total No of Properties with Claims	29,036	29,113	77
(0)			
No of FOC Only Proportion	00.440	06.440	7
No of EQC Only Properties	26,149	26,142	-7
Total with EQ Damage <sup>1</sup>	55,185	55,255	70
Total with La Damaye	50, 100	00,200	7.0

<sup>&</sup>lt;sup>1</sup>Total assumed to be equal to total recorded to date on EQC database

Reported Over Cap properties have been higher than anticipated, we have assumed a higher level of additions in future, but some will be Under Cap after DRAs completed



## TC3 Enhanced Foundations: Emerging profile



withheld pursuant to sections 9(2)(i) and 9(2)(j)

Recent experience suggests foundations will be more costly than reflected in FORs. Rates agreed with Golden Homes have been higher than the FORs estimates. Mixed messages regarding likely future direction relative to what has been agreed with Golden Home. We have assumed our costing basis to be in line with that agreed with Golden Homes.



## TC3 - DRA Allowance for Enhanced Foundations

### **Per Property**

**Estimated Ultimate Foundation Cost** 

Average Allowance in DRA



#### **Total**

No. of TC3 Properties

Excess Over Std 3604 Cost (\$m)

Allowance in DRAs (\$m)

Shortfall in DRAs (\$m)

Properties expected to receive land compensation

Assumed Land Compensation Per Property

**Expected Land Remediation Recoveries (\$m)** 

Net Cost Relative to DRAs (\$m)

Net Cost (Saving) Per TC3 Property

Shortfall in DRAs for cost of enhanced foundations

Expected compensation from EQC

withheld pursuant to sections 9(2)(i) and 9(2)(j)

Relative to the DRA allowances, we have reflected a small saving as a result of an agreement with EQC expected to be reached in respect of land remediation compensation for around 200 category 8 properties



## TC2 - DRA Allowance for Enhanced Foundations



withheld pursuant to sections 9(2)(i)and 9(2)(j)

Enhanced Foundation cost per TC2 Property				
Estimated Avg Enhanced Foundation Cost	\$			
Estimated 3604 Cost	\$			
Excess Over Std 3604 Cost	\$			
Average Allowance in DRA	\$			
Excess Cost	\$			
	•			

Expected TC2 foundations cost have now been included as a specific adjustment to the recorded DRA amounts

Equates to \$10 million across TC2



## **Over Cap – Summary of Claims Costs**

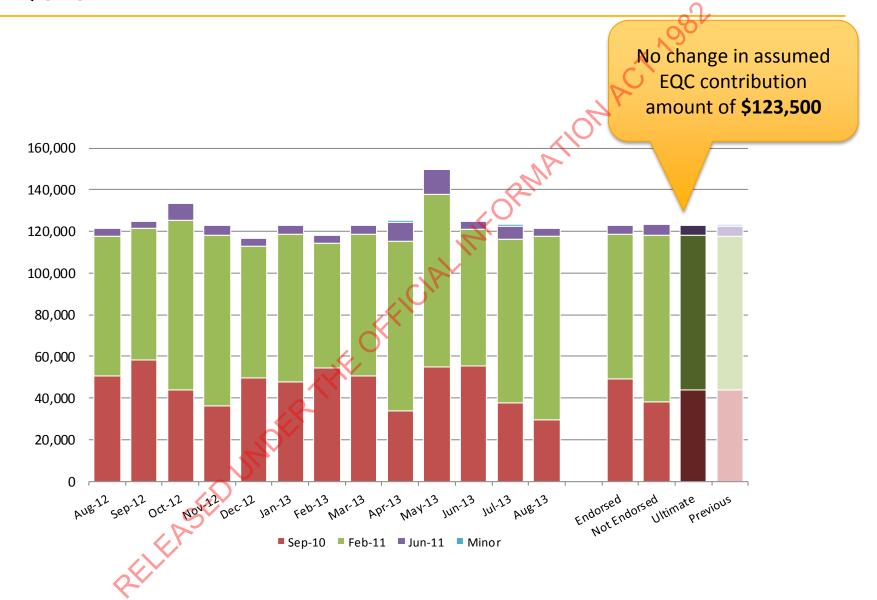
		Average Claim Size \$000			Total Claim Cost \$m			
	No of Properties	Recorded	Adjust.	Adopted @ Sep (\$Sep13)	Adopted @ Jun (\$Sep13)	Recorded	Adjust.	Value in \$Sep13
Rebuild	1,879							
Repair	1,897				MK			
Arrow Managed	3,776				PI			
Cash Settlements	3,163	_		THE STATE OF THE S				_
All Over Cap	6,939		(0) (2) (1)					

withheld pursuant to section (9)(2)(b)(ii)

- Expected size of cash settlements has reduced
- Repair/Rebuild sizes have basically been rolled forward TC3/TC2 adjustments have been small in the scheme of things.
- Small shift in mix towards repairs

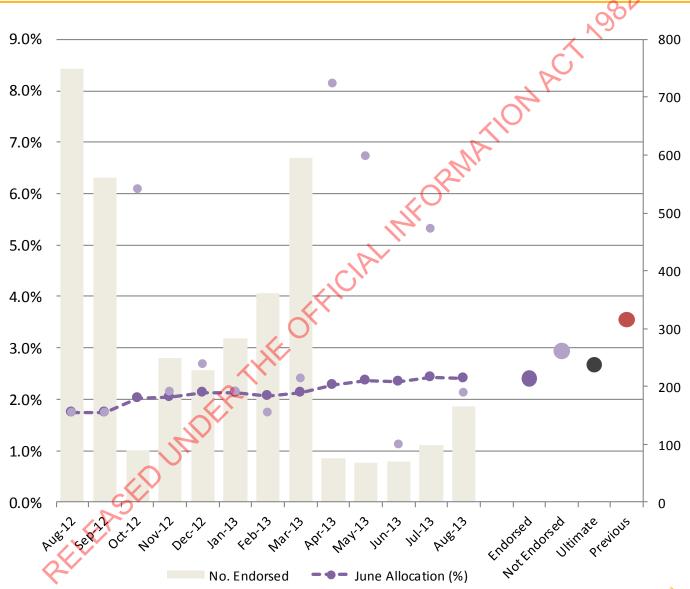


## **EQC Contributions**



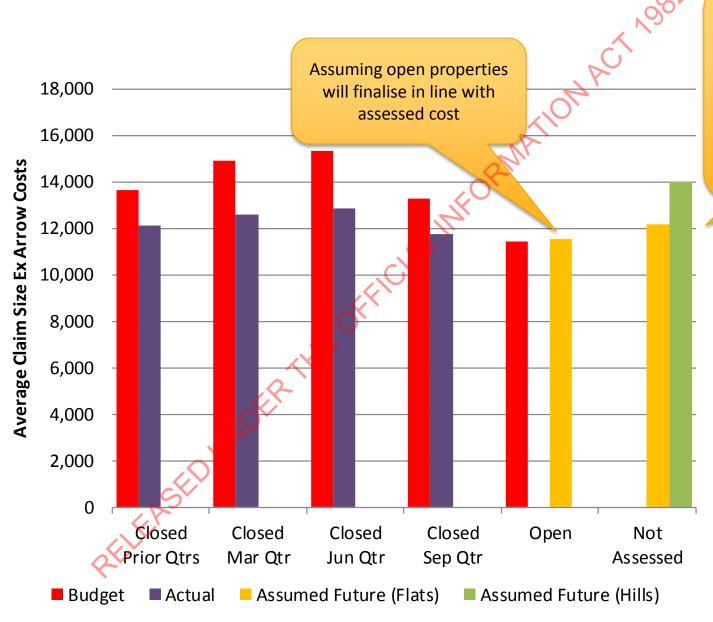


## Allocation to the June event





## **Out of Scope: Average Claim Size**



Assuming unassessed properties in line with experience across all closed and open properties (higher for Hills)



## **Escalation**

September quarter figures released this week – 7% pa vs 15% pa assumed at June valuation

	Dec-11	Dec-12	Mar-13	Jun-13	Sep-13	Quarterly Escalation (%)
<b>Arrow Std Home Costings \$00</b>	00					
Arrow Cost Schedules	231	247	255	256	258	4.00
% movement (annualised	)	7%	14%	1%	3%	3.50
Movt since Dec 11 (annuali	sed)			7%	6%	3.00
Market Testing		242	250	256		2.50
% movement (annualised	)		14%	10%	. 1	2.00
Statistics NZ Indices					FIC	1.50
Canterbury	1259	1386	1432	1473	1498	0.50
% movement (annualised	)	10%	14%	12%	7%	0.00
Movt since Dec 11 (annualis	ed)		0	11%	10%	Mar-12 Jun-12 Sep-12 Dec-12 Mar-13 Jun-13 Sep-13
Auckland	1199	1217	1221	1240	1252	CPI New Home Construction Arrow Schedules  — — — CPI 13 YTD — — Arrow 13 YTD
% movement (annualised)	)	1.5%	1.3%	6.4%	3.9%	Arrow 13 FID

Arrow schedules continue to increase at below market levels

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## Reliances & Limitations

We have relied on the accuracy and completeness of all data and other information (qualitative, quantitative, written and verbal) provided to us for the purpose of this presentation. We have not independently verified or audited the data but we have reviewed it for general reasonableness and consistency. It should be noted that if any data or other information is inaccurate or incomplete, we should be advised so that our advice can be revised, if warranted.

It is not possible to put a value on outstanding claims with certainty. As well as difficulties caused by limitations on the historical information, outcomes remain dependent on future events, including legislative, social and economic forces. In our judgement, we have employed techniques and assumptions that are appropriate, and the conclusions presented herein are reasonable, given the information currently available. However, it should be recognised that future claim emergence will likely deviate, perhaps materially, from our estimates.

The presentation 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.

