Date of Notice: Friday, December 5, 2014

PUBLIC NOTICE

A PUBLIC MEETING OF THE GOVERNING BOARD
OF THE CALIFORNIA EARTHQUAKE AUTHORITY

NOTICE IS HEREBY GIVEN that the Governing Board of the California Earthquake Authority ("CEA") will meet in West Sacramento, California. Pursuant to California Insurance Code §10089.7, subdivision (j), the Bagley-Keene Open Meeting Act applies generally to meetings of the Board, and the meeting is open to the public—public participation, comments, and questions will be welcome for each agenda item. All items are appropriate for action if the Governing Board wishes to take action. Agenda items may be taken out of order.

LOCATION: **CalSTRS Headquarters Building**
Boardroom – Lobby, E-124
100 Waterfront Place
West Sacramento, California

DATE: **Wednesday, December 17, 2014**

TIME: **1:00 p.m.**

This CEA Governing Board meeting will be broadcast live on the Internet. Please wait until the official start time of the meeting before clicking on either icon:

Audio **Video (with audio)**

If you are unable to log into the meeting please call the CEA directly at (916) 661-5001 for further assistance.

AGENDA:

1. Call to order and member roll call:

   Governor
   Treasurer
   Insurance Commissioner
   Speaker of the Assembly
   Chair of the Senate Rules Committee

   Establishment of a quorum

2. Consideration and approval of the minutes of the August 28, 2014, and October 7, 2014, CEA Governing Board meetings.

3. Executive Report by Chief Executive Officer Glenn Pomeroy; assisted by CEA executive staff, Mr. Pomeroy's report will include an update for the Board on legislative activities of interest to the CEA.

4. Mr. Pomeroy will present to the Board an update on the CEA's response to the August 24, 2014, South Napa earthquake.

5. Chief Financial Officer Tim Richison will present the CEA financial report.

6. As an annual, recurring item, Mr. Richison will present to the Board the CEA's 2015 Risk-Transfer Strategy.

7. Kapil Bhatia, Managing Director of Public Finance for Raymond James & Associates, Inc.—the CEA's independent financial advisor—will present to the Governing Board the annual report on the state of the economy.

8. Chief Communications Officer Chris Nance will update the Board on participating-insurer engagement in communications programming.

9. CEA Advisory Panel Chair Mark Simmonds will provide a summary of the proceedings of the October 23, 2014, Panel meeting.

10. Members of the CEA Insurance Operations team will present to the Board proposed modifications to the CEA-earthquake-insurance rating plan and policy forms, including coverage modifications and enhancements.

11. Chief Mitigation Officer Janiele Maffei will update the Board on the CEA mitigation program's "Pre-Standard Project" (conducted in conjunction with FEMA and the Applied Technology Council) and other earthquake-loss-mitigation-related research, including projected funding requirements.

12. Ms. Maffei will update the Board on the California Residential Mitigation Program incentive program, operated by a joint powers authority whose members are CalOES and the CEA.

13. Mr. Richison and Ms. Maffei will request Board approval to transfer funds from the 2014 CEA mitigation budget to the California Residential Mitigation Program for use in the CRMP incentive program.

14. Chief Information Officer Todd Coombes will give a progress report to the Board on the 2014 CEA IT Project Portfolio.

15. Mr. Coombes will seek Board approval for planned 2015 CEA IT initiatives and for the corresponding 2015 IT Project Portfolio.

16. Mr. Coombes will update the Board on progress made to date in security and reliability upgrades to the CEA's IT infrastructure.

17. Mr. Coombes will present to the Board a concept for centralizing CEA insurance-policy processing.

18. Director of Policy, Research & Special Projects Bruce Patton will present and describe a planned Request for Qualifications and Proposals for conducting research to support CEA's ongoing effort to quantify the performance effects of bracing cripple walls and anchoring mud sills.

19. Mr. Pomeroy will present the 2015 CEA Business Implementation Plan for Board consideration and approval.

20. Mr. Pomeroy and Mr. Richison will present the 2015 CEA insurance-services budget for Board consideration and approval.

21. Ms. Maffei and Mr. Richison will present the 2015 CEA mitigation-program budget for Board consideration and approval.

22. Mr. Pomeroy will update the Board on the development of organizational and staff performance metrics for the CEA.

23. Mr. Pomeroy will present for Board consideration and approval the 2015 Governing Board meeting calendar.

24. The Board will meet in closed session to discuss personnel matters and litigation matters, as permitted by California Government Code section 11126, subdivisions (a) and (e), respectively.

25. Public comment on items that do not appear on this agenda and public requests that those matters be placed on a future agenda.

26. Adjournment.

For further information about this notice or its contents:

General Information:
Marc Keller
(916) 661-5549 (Direct)
Toll free: (877) 797-4300

California Earthquake Authority
801 K Street, Suite 1000
Sacramento, CA 95814
Toll free (877) 797-4300

Media Contact:
Chris Nance
Chief Communications Officer
(916) 661-5521 (Direct)
nancec@calquake.com

To view this notice on the CEA Web site or to learn more about the CEA, please visit www.EarthquakeAuthority.com

***

Persons with disabilities may request special accommodations at this or any future Governing Board meeting or may request the accommodation necessary to receive agendas or materials the CEA prepares for its Board meetings.

Please contact Marc Keller by telephone, toll free, at (877) 797-4300 or by email at Marc_Keller@calquake.com. We would appreciate hearing from you at least five days before the meeting date to best allow us to meet your needs.

***

NOTE: You might have received this notice because your name, or that of your organization, appears on a public-notice list maintained by the California Earthquake Authority. If in the future you do not wish to receive public notices pertaining to the California Earthquake Authority, please send your request by email to Marc_Keller@calquake.com.

Draft Meeting Minutes are not available.

Please see CEA Governing Board Meeting

Approved Minutes.

Governing Board Memorandum

December 17, 2014

Agenda Item 3: Executive Report by Chief Executive Officer Glenn Pomeroy

Recommended Action: No action required – information only

Chief Executive Officer Glenn Pomeroy will present his Executive Report to the Board; assisted by CEA executive staff, Mr. Pomeroy will update the Board on federal and state legislative activities of interest to the CEA.

Governing Board Memorandum

December 17, 2014

Agenda Item 4:	Post-event update on the August 24, 2014, South Napa Earthquake
Recommended Action:	No action required – information only

Chief Executive Officer Glenn Pomeroy will present to the Board an update on the CEA's response to the August 24, 2014, South Napa earthquake.

CALIFORNIA EARTHQUAKE AUTHORITY™

THE STRENGTH TO REBUILD®

FINANCIAL REPORT

as of September 30, 2014

Financial Report Table of Contents

Chart Title	Page
Financial Statements & Budgets	
Balance Sheet as of September 30, 2014	1
Statement of Revenues, Expenses and Changes in Net Position Year-to-Date Ended September 30, 2014	2
Insurance Services Budgeted and Actual Expenditures for 2014 Budget Year	3
Insurance Services Budgeted and Actual Expenditures for 2014 Budget Year	4
Mitigation Budgeted and Actual Expenditures for 2014 Budget Year	5
Annual Capital Accumulated from Premium as of December 31, 2013	6
Investments	
Annual Investment Income as of December 31, 2013	7
Investment Portfolio Distribution at Market Value CEA Liquidity & Primary Funds as of September 30, 2014	8
Investment Portfolio Distribution at Market Value Claim-Paying Fund & Mitigation Fund as of September 30, 2014	9
Debt	
Schedule of Outstanding Debt as of September 30, 2014	10
Claim-Paying Capacity	
Available Capital Report as of September 30, 2014	11
Claim-Paying Capacity as of September 30, 2014	12
Historical Totals Claim-Paying Capacity (CPC) December 31, 1997 through December 31, 2004	13A
Historical Totals Claim-Paying Capacity (CPC) December 31, 2005 through September 30, 2014	13B
Risk-Transfer Programs	
Risk-Transfer Program Summary as of September 30, 2014	14
2014 Total Premium Risk-Transfer Program Summary as of September 30, 2014	15
Annual Risk-Transfer Premium December 31, 1997 through December 31, 2004	16A
Annual Risk-Transfer Premium December 31, 2005 through December 31, 2013	16B
Annual Risk-Transfer Premium and Limit December 31, 1997 through December 31, 2004	17A
Annual Risk-Transfer Premium and Limit December 31, 2005 through December 31, 2013	17B

Note: See Fact Sheets for Policies In Force, Written Premiums, and Exposures.

Financial Statements
&
Budgets

California Earthquake Authority
Balance Sheet
as of September 30, 2014

Assets		
Cash and investments:		
Cash and cash equivalents	$	119,358,057
Restricted cash & equivalents		51,606,610
Restricted investments		314,148,112
Investments		4,738,816,509
Total cash and investments		5,223,929,288
Premiums receivable, net of allowance for doubtful accounts of $6,607,526		50,732,714
Capital contributions receivable		-
Risk capital surcharge receivable		-
Interest receivable		14,898,219
Securities receivable		-
Restricted securities receivable		-
Prepaid reinsurance premium		5,316,041
Transformer reinsurance premium deposit		9,631,130
Prepaid transformer maintenance premium		279,773
Equipment, net		723,026
Deferred policy acquisition costs		41,831,232
Other assets		62,022
Total assets	$	5,347,403,445
Liabilities and Net Position		
Unearned premiums	$	319,566,327
Accounts payable and accrued expenses		2,605,358
Payable to California Residential Mitigation Program		-
Accrued reinsurance premium expense		4,402,804
Claim and claim expense reserves		2,086,660
Securities payable		-
Revenue bond payable		63,000,000
Revenue bond interest payable		971,618
Total liabilities		392,632,767
Net position:		
Restricted, expendable		302,477,310
Unrestricted, participating insurer contributed capital		777,384,796
Unrestriced, State of California contributed capital		206,815,902
Unrestricted, all other remaining		3,668,092,670
Total net position		4,954,770,678
Total liabilities and net position	$	5,347,403,445

California Earthquake Authority
Statement of Revenues, Expenses and Changes in Net Position
Year-to-Date Ended September 30, 2014

Underwriting income:	
Premiums written	$ 463,313,771
Less premiums ceded - reinsurance	(144,919,226)
Less risk capital surcharge	-
Net premiums written	318,394,545
Change in unearned premiums	(23,156,102)
Net unearned premiums	(23,156,102)
Net premiums earned	295,238,443
Expenses:	
Claim and claims expense	2,812,759
Participating Insurer commissions	44,030,868
Participating Insurer operating costs	14,593,496
Reinsurance broker commissions	3,616,667
Pro forma premium taxes	10,887,874
Other underwriting expenses	18,691,485
Total expenses	94,633,149
Underwriting profit	200,605,294
Net investment income	14,589,715
Other income	308,115
Financing expenses, net	(2,685,404)
Earthquake Loss Mitgation Fund expenses	(548,751)
Participating Insurer Contributed Capital	-
State of California premium tax contribution	10,887,874
Increase in net position	223,156,843
Net position, beginning of year	4,731,613,835
Net position, end of year to date	$ 4,954,770,678

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Budgeted and Actual Expenditures
2014 Budget Year

	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f) (f=d-e)	(g) (g=e/d)
	Approved 2014 Budget 1/1/2014	**Adjustments thru 09/30/2014**	**Augmentations thru 09/30/2014**	**2014 Budget after Augmentations and Adjustments**	**Actual Expenditures as of 09/30/2014**	**Augmented & Adjusted Approved Budget (d) vs. Actual Expenses (e) as of 09/30/2014**	**Percentage used of Augmented & Adjusted Approved 2014 Budget**
Salaries & Benefits	11,679,999	-	-	11,679,999	7,596,989	4,083,010	65.04%
Rent	753,615	-	-	753,615	560,591	193,024	74.39%
Travel	405,987	-	-	405,987	223,216	182,771	54.98%
Non-paid Consultant Travel	2,000	-	-	2,000	-	2,000	0.00%
Telecommunications	181,140	-	-	181,140	134,943	46,197	74.50%
Training	285,719	-	-	285,719	137,715	148,004	48.20%
Insurance	167,500	-	-	167,500	163,381	4,119	97.54%
Board/Panel Services	35,000	-	-	35,000	9,553	25,447	27.29%
Administration & Office	1,268,015	-	-	1,268,015	239,494	1,028,521	18.89%
(Software Maint & Support, Printing & Stationery, Postage)							
Other Administrative Services	34,885	-	-	34,885	21,931	12,954	62.87%
Furniture/Equipment	47,600	-	-	47,600	29,810	17,790	62.63%
EDP Hardware/Software	689,665	-	-	689,665	606,200	83,465	87.90%
Dept of Insurance Examination	50	-	-	50	3,450	(3,400)	6900.00%
Total Operating Expenses	**$ 15,551,175**	**$ -**	**$ -**	**$ 15,551,175**	**$ 9,727,273**	**$ 5,823,902**	**62.55%**
Consulting Services							
Claims	10,000	-	-	10,000	-	10,000	0.00%
Compliance	150,000	-	-	150,000	-	150,000	0.00%
Executive Recruiting	75,000	-	-	75,000	-	75,000	0.00%
Financial Consulting	260,000	-	-	260,000	75,674	184,326	29.11%
Government Relations	190,000	-	-	190,000	84,000	106,000	44.21%
Human Resources	395,000	-	-	395,000	74,756	320,244	18.93%
Information Systems	145,000	-	-	145,000	18,345	126,655	12.65%
Internal Audit	50,000	-	-	50,000	-	50,000	0.00%
Investment Compliance	40,000	-	-	40,000	-	40,000	0.00%
Public Relations	100,000	-	-	100,000	19,571	80,429	19.57%
Other Consulting Services	190,000	-	-	190,000	20,182	169,818	10.62%
Total Consulting Services	$ 1,605,000	$ -	$ -	$ 1,605,000	$ 292,528	$ 1,312,472	18.23%

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Budgeted and Actual Expenditures
2014 Budget Year

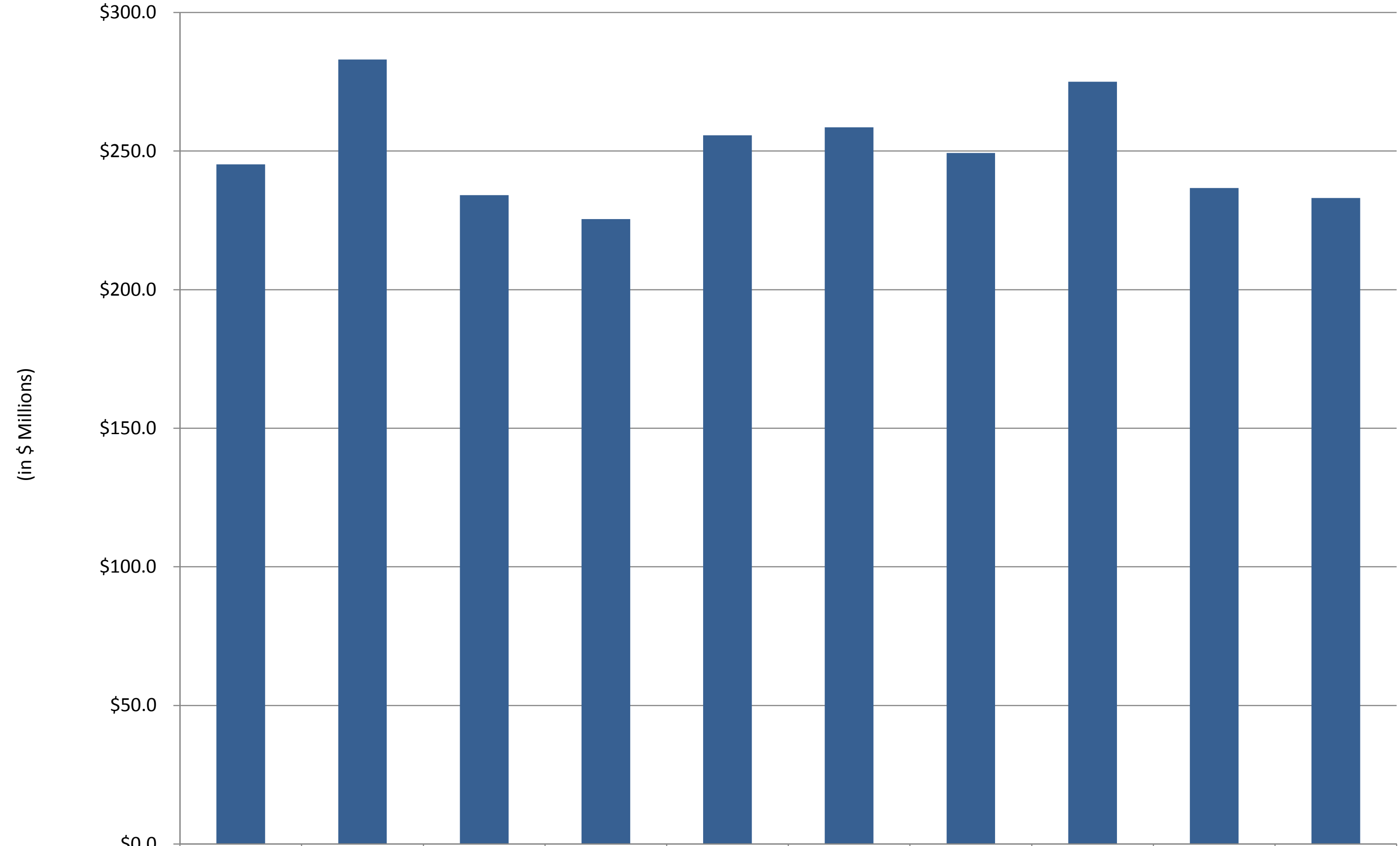
	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f) (f=d-e)	(g) (g=e/d)
	Approved 2014 Budget 1/1/2014	**Adjustments thru 09/30/2014**	**Augmentations thru 09/30/2014**	**2014 Budget after Augmentations and Adjustments**	**Actual Expenditures as of 09/30/2014**	**Augmented & Adjusted Approved Budget (d) vs. Actual Expenses (e) as of 09/30/2014**	**Percentage used of Augmented & Adjusted Approved 2014 Budget**
Contracted Services							
Agent Services	70,000	-	-	70,000	43,246	26,754	61.78%
Audit Services	109,000	-	-	109,000	82,500	26,500	75.69%
IT Services [1]	2,591,005	-	273,466	2,864,471	886,626	1,977,845	30.95%
Legal Services - Claims Counsel	300,000	-	-	300,000	-	300,000	0.00%
Legal Service - Non-Claims	7,355,000	-	-	7,355,000	1,208,594	6,146,406	16.43%
Marketing Services	8,878,000	-	-	8,878,000	2,860,204	6,017,796	32.22%
Modeling Services	711,000	-	-	711,000	372,500	338,500	52.39%
Rating Agencies	197,350	-	-	197,350	197,300	50	99.97%
Staffing Services - Support and Admin	3,106,214	-	-	3,106,214	2,114,027	992,187	68.06%
Other Contracted Services	50,000	-	-	50,000	-	50,000	0.00%
Total Contracted Services	$ 23,367,569	$ -	$ 273,466	$ 23,641,035	$ 7,764,997	$ 15,876,038	32.85%
Research	200,000	-	-	200,000	198,099	1,901	99.05%
Participating Insurer Commissions	56,742,287	-	-	56,742,287	46,346,478	10,395,809	81.68%
Participating Insurer Operating Costs	17,533,367	-	-	17,533,367	14,301,225	3,232,142	81.57%
Investment Expenses	2,422,156	-	-	2,422,156	1,651,199	770,957	68.17%
Financing Expenses	5,079,788	-	-	5,079,788	4,187,902	891,886	82.44%
Risk Transfer	222,221,550	-	-	222,221,550	148,535,893	73,685,657	66.84%
Total Expenditures	**$ 344,722,892**	**$ -**	**$ -**	**$ 344,996,358**	**$ 233,005,594**	**$ 111,990,764**	**67.54%**

[1] Augmentation due to board approved upgrade in CEA IT infrastructure.

CALIFORNIA EARTHQUAKE AUTHORITY
Mitigation
Budgeted Expenditures and Actual Expenditures
2014 Budget Year

	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f) (f=d-e)	(g) (g=e/d)
	Approved 2014 Budget 1/1/2014	**Adjustments thru 09/30/2014**	**Augmentations thru 09/30/2014**	**2014 Budget after Augmentations and Adjustments**	**Actual Expenditures as of 09/30/2014**	**Augmented & Adjusted Approved Budget (d) vs. Actual Expenses (e) as of 09/30/2014**	**Percentage used of Augmented & Adjusted Approved 2014 Budget**
Salaries & Benefits	647,379	-	-	647,379	284,249	363,130	43.91%
Rent	33,120	-	-	33,120	23,609	9,511	71.28%
Travel	50,000	-	-	50,000	19,543	30,457	39.09%
Non-paid Consultant Travel	5,000	-	-	5,000	-	5,000	0.00%
Telecommunications	10,800	-	-	10,800	4,859	5,941	44.99%
Training	22,880	-	-	22,880	10,005	12,875	43.73%
Administration & Office (Software Maint & Support, Printing & Stationery, Postage)	113,600	-	-	113,600	29,079	84,521	25.60%
Furniture/Equipment	1,000	-	-	1,000	389	611	38.90%
EDP Hardware/Software	-	-	-	-	139	(139)	0.00%
Total Operating Expenses	**$ 883,779**	**$ -**	**$ -**	**$ 883,779**	**$ 371,872**	**$ 511,907**	**42.08%**
Consulting Services							
Other Consulting Services	100,000	-	-	100,000	-	100,000	0.00%
Total Consulting Services	$ 100,000	$ -	$ -	$ 100,000	$ -	$ 100,000	0.00%
Contracted Services							
Legal Services - Non-Claims	50,000	-	-	50,000	-	50,000	0.00%
Mitigation Projects	850,000	-	-	850,000	106,264	743,736	12.50%
Staffing Services - Support and Admin	222,436	-	-	222,436	67,635	154,801	30.41%
Other Contracted Services	50,000	-	-	50,000	-	50,000	0.00%
Total Contracted Services	$ 1,172,436	$ -	$ -	$ 1,172,436	$ 173,899	$ 998,537	14.83%
CRMP Contribution	-	-	-	-	-	-	0.00%
Investment Expenses	16,800	-	-	16,800	15,337	1,463	91.29%
Total Expenditures	**$ 2,173,015**	**$ -**	**$ -**	**$ 2,173,015**	**$ 561,108**	**$ 1,611,907**	**25.82%**

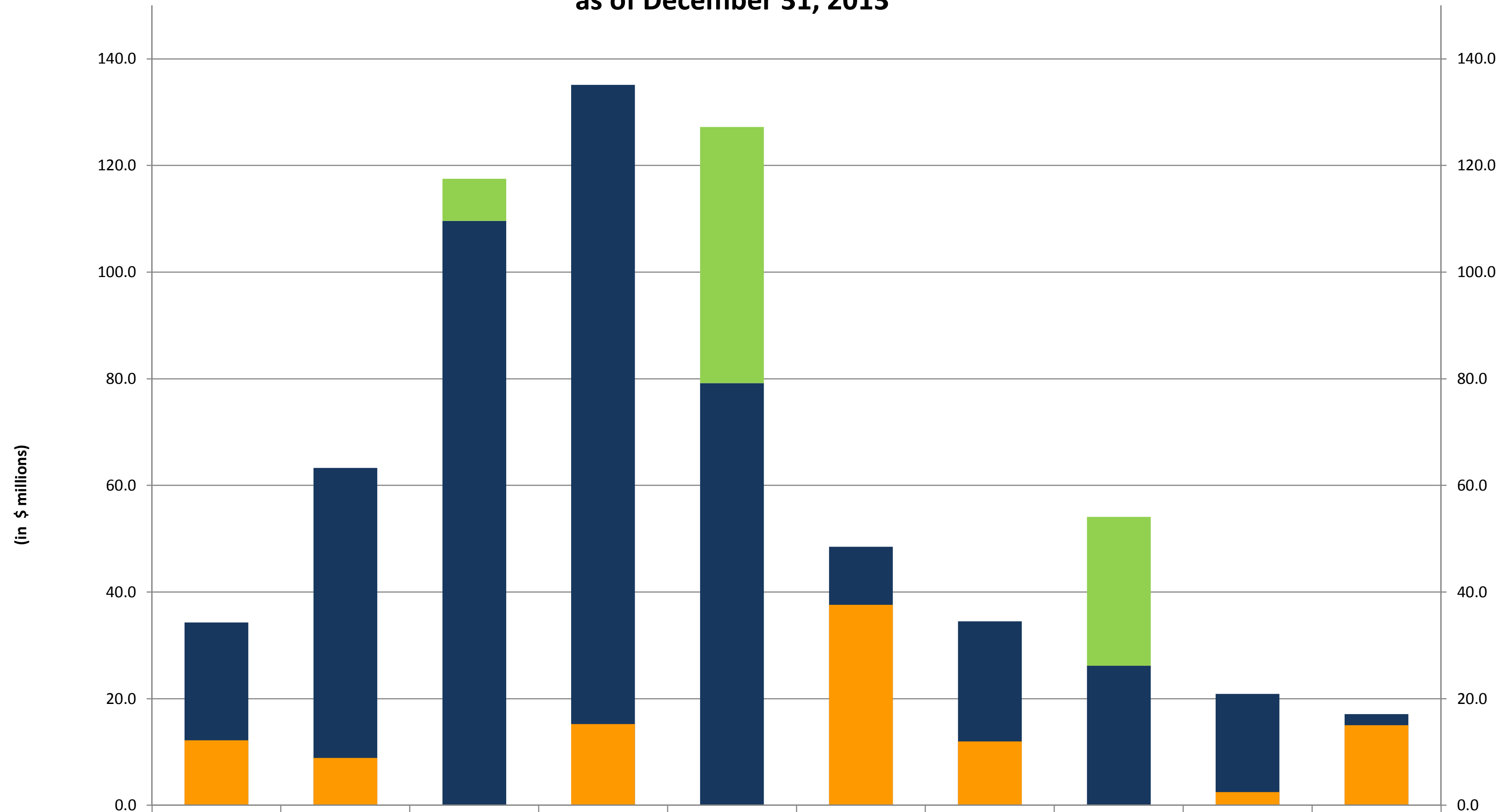
California Earthquake Authority
Annual Capital Accumulated from Premium
as of December 31, 2013



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Capital Accumulated from Premium	$245.2	$283.1	$234.1	$225.5	$255.7	$258.6	$249.3	$275.0	$236.7	$233.1

Investments

California Earthquake Authority
Annual Investment Income
as of December 31, 2013

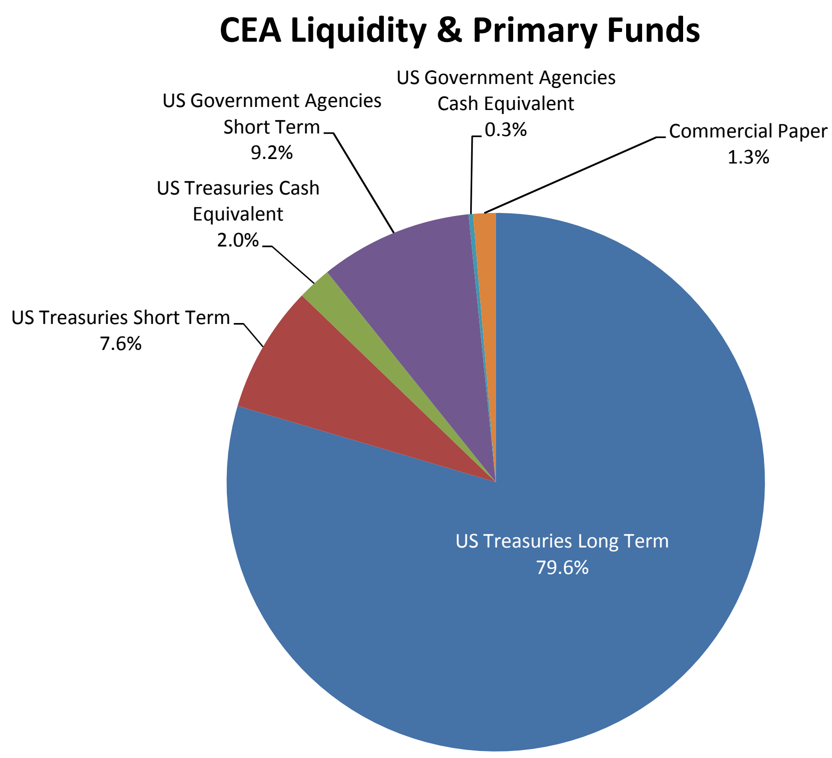


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Investment Income*	22.1	54.4	117.5	119.9	127.2	10.9	22.5	54.1	18.4	2.1
Unrealized Gain	0.0	0.0	7.9	0.0	48.0	0.0	0.0	27.9	0.0	0.0
Investment Income	34.3	63.3	109.6	135.1	79.2	48.5	34.5	26.2	20.9	17.1
Unrealized Loss	12.2	8.9	0.0	15.2	0.0	37.6	12.0	0.0	2.5	15.0

* Net Investment Income is investment income net of unrealized gain or unrealized loss and ties to the financial statement.

California Earthquake Authority
Investment Portfolio Distribution at Market Value
as of September 30, 2014

CEA Liquidity & Primary Funds:	**$4,850,589,924**
US Treasuries Long Term	79.6%
US Treasuries Short Term	7.6%
US Treasuries Cash Equivalent	2.0%
US Government Agencies Short Term	9.2%
US Government Agencies Cash Equivalent	0.3%
Commercial Paper	1.3%
Commercial Paper Cash Equivalent	0.0%
Total:	**100.0%**

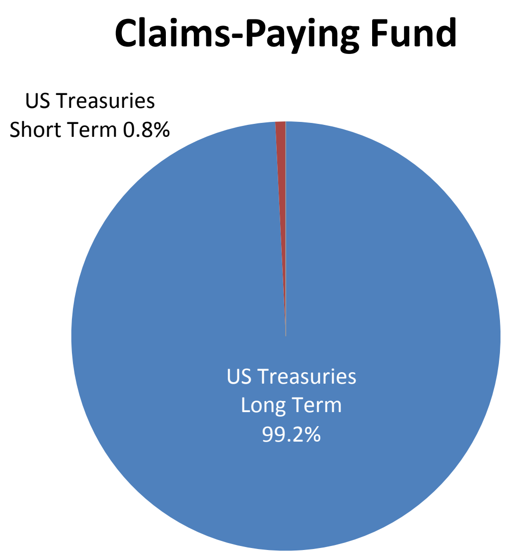


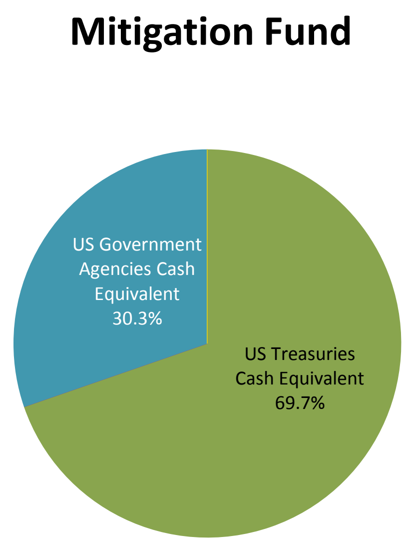
Note: All CEA investment portfolios are managed by outside firms.

California Earthquake Authority
Investment Portfolio Distribution at Market Value
as of September 30, 2014

Claims-Paying Fund:	**$314,148,432**
US Treasuries Long Term	99.2%
US Treasuries Short Term	0.8%
US Treasuries Cash Equivalent	0.0%
US Government Agencies Short Term	0.0%
US Government Agencies Cash Equivalent	0.0%
Commercial Paper	0.0%
Commercial Paper Cash Equivalent	0.0%
Total:	**100.0%**

Mitigation Fund:	**$23,957,964**
US Treasuries Long Term	0.0%
US Treasuries Short Term	0.0%
US Treasuries Cash Equivalent	69.7%
US Government Agencies Short Term	0.0%
US Government Agencies Cash Equivalent	30.3%
Commercial Paper	0.0%
Commercial Paper Cash Equivalent	0.0%
Total:	**100.0%**





Debt

California Eathquake Authority
Schedule of Outstanding Debt

DEBT	ISSUANCE AMOUNT	INTEREST RATE	NET PROCEEDS	OUTSTANDING PRINCIPAL	AS OF DATE	MOODY'S RATING*	FITCH RATING*
Series 2006 Revenue Bonds	**$ 315,000,000**	**6.169%**	**$ 310,829,067**	**$ 63,000,000**	**30-Sep-2014**	**A3 Outlook Stable**	**A Outlook Stable**

DEBT-SERVICE SCHEDULE

The table below shows the annual-debt-service requirements for the Series 2006 Bonds.

Period Ending	Outstanding Principal	Principal	Interest	Debt Service	Annual Debt Service
1-Jan-14	$94,500,000		$2,914,853	$2,914,853	
1-Jul-14	$63,000,000	$31,500,000	$2,914,853	$34,414,853	
2014					$37,329,706
1-Jan-15	$63,000,000		$1,943,235	$1,943,235	
1-Jul-15	$31,500,000	$31,500,000	$1,943,235	$33,443,235	
2015					$35,386,470
1-Jan-16	$31,500,000		$971,618	$971,618	
1-Jul-16		$31,500,000	$971,618	$32,471,618	
2016					$33,443,236

*Ratings of 'A3' and 'A' since 2006 (These ratings were reaffirmed in 2013)

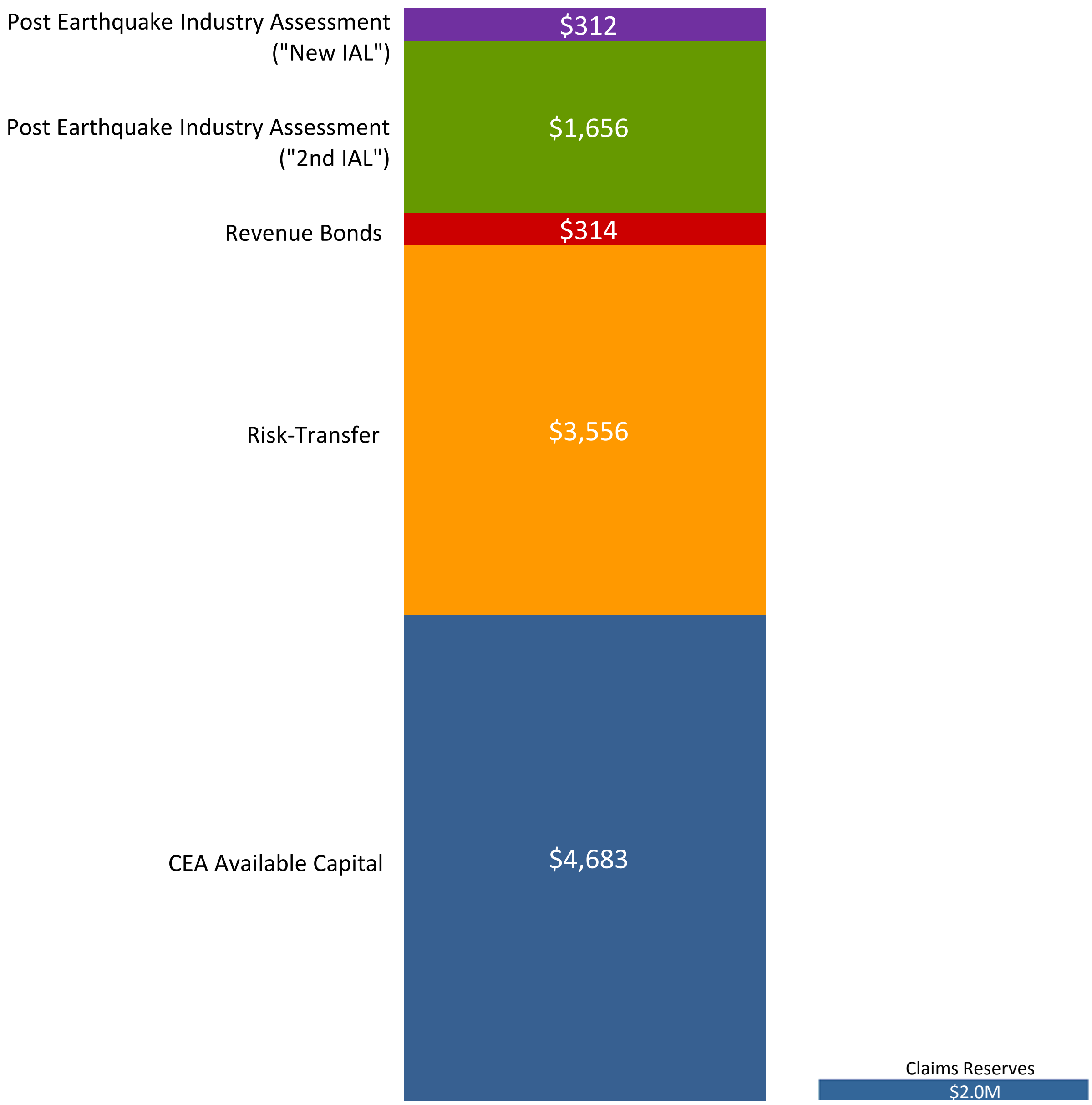
Claim-Paying Capacity

California Earthquake Authority
Available Capital Report
as of September 30, 2014

Cash & Investments (includes capital contributions and premiums)	$	5,199,970,609	*
Interest, Securities & Restricted Securities Receivable	$	14,898,219	
Premium Receivable	$	50,732,714	
Risk Capital Surcharge & Capital Contributions Receivable	$	-	
Other Assets	$	62,022	
Revenue Bonds	$	(314,148,432)	
Debt Service (Interest, Principal & Debt Service (Min. Bal.))	$	(27,397,099)	
Unearned Premium Collected	$	(232,239,237)	
Accrued Reinsurance Premium Expense	$	(4,402,804)	
Accounts and Securities Payable, and Accrued Expenses	$	(2,605,358)	
Claim Reserves	$	(2,000,000)	
CEA Available Capital	**$**	**4,682,870,635**	

* Does not include Earthquake Loss Mitigation Fund cash and investments of $23,958,679

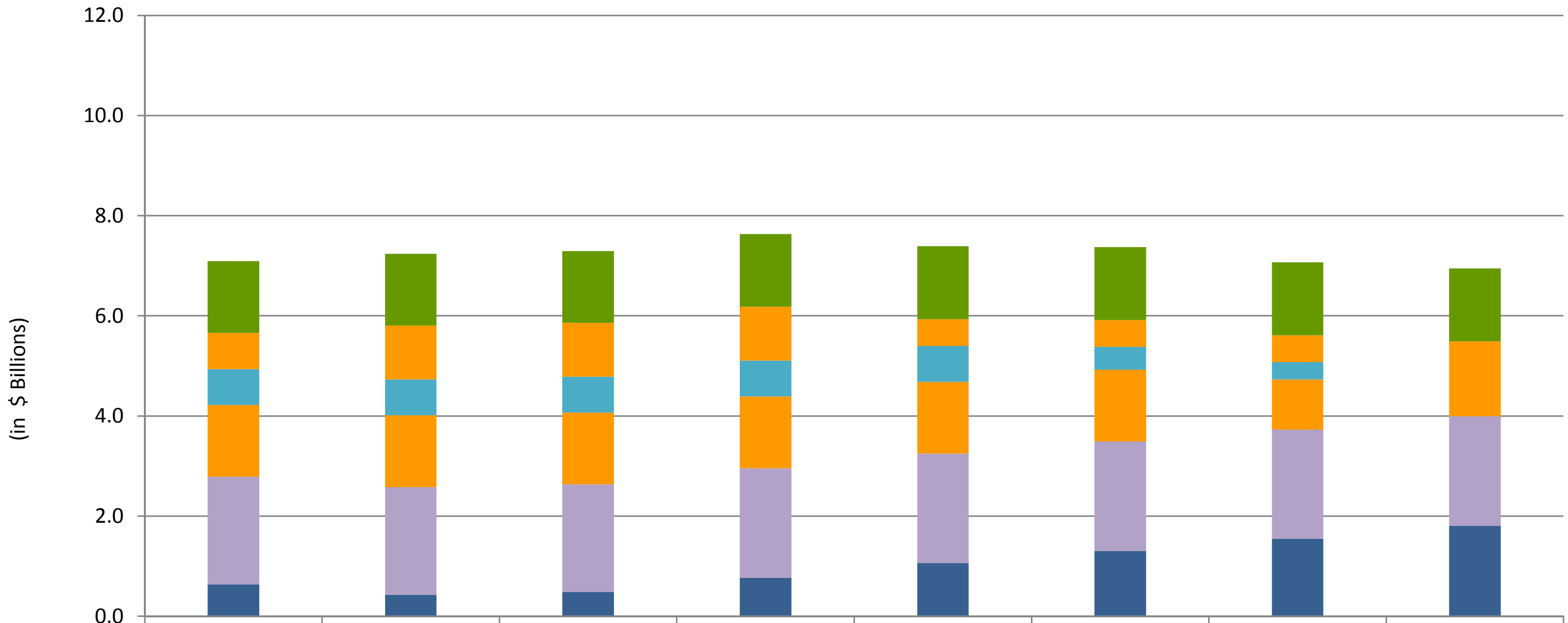
California Earthquake Authority
Claim-Paying Capacity
as of September 30, 2014



Total Capacity $10,521M

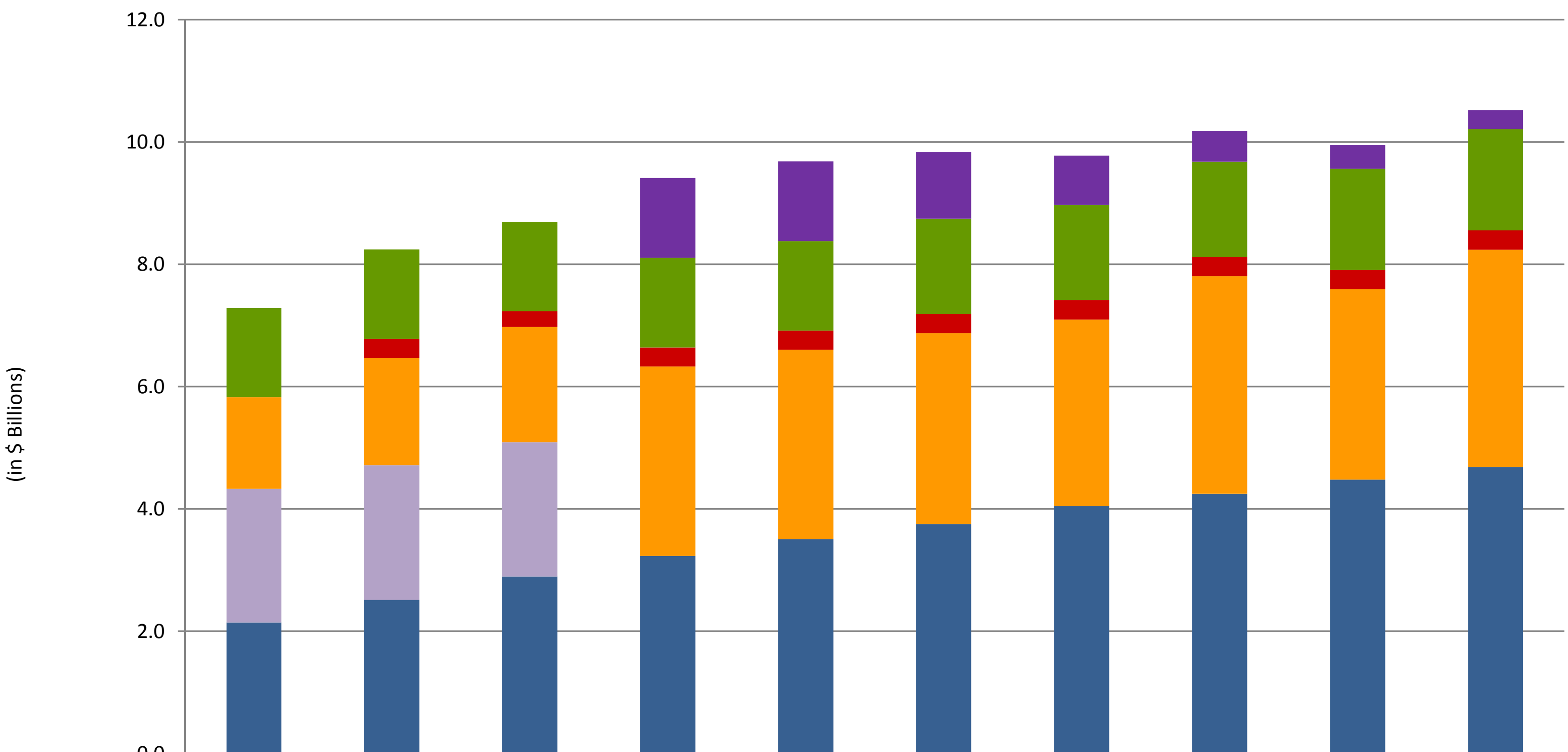
*Not drawn to scale

California Earthquake Authority
Historical Totals Claim-Paying Capacity (CPC)
December 31, 1997 through December 31, 2004



	1997	1998	1999	2000	2001	2002	2003	2004
Total CPC	$7.095	$7.240	$7.293	$7.635	$7.390	$7.373	$7.069	$6.948
New Industry Assessment	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2nd Industry Assessment	1.434	1.434	1.434	1.456	1.456	1.456	1.456	1.456
Revenue Bonds	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Risk-Transfer, 2nd Layer	0.727	1.075	1.075	1.075	0.538	0.538	0.538	0.000
Line of Credit	0.716	0.716	0.716	0.716	0.716	0.456	0.348	0.000
Risk Transfer, 1st Layer	1.433	1.433	1.433	1.433	1.433	1.433	1.000	1.500
1st Industry Assessment	2.150	2.150	2.150	2.183	2.183	2.183	2.183	2.183
CEA Available Capital	0.635	0.432	0.485	0.772	1.064	1.307	1.544	1.809

California Earthquake Authority
Historical Totals Claim-Paying Capacity (CPC)
December 31, 2005 through September 30, 2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
Total CPC	7.284	8.244	8.695	9.411	9.685	9.840	9.777	10.179	9.949	10.521
New Industry Assessment	0.000	0.000	0.000	1.304	1.304	1.095	0.804	0.500	0.385	0.312
2nd Industry Assessment	1.456	1.465	1.465	1.465	1.465	1.558	1.558	1.558	1.656	1.656
Revenue Bonds	0.000	0.311	0.254	0.311	0.311	0.311	0.317	0.314	0.314	0.314
Risk-Transfer, 2nd Layer	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Line of Credit	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Risk Transfer, 1st Layer	1.500	1.756	1.885	3.100	3.100	3.123	3.050	3.557	3.115	3.556
1st Industry Assessment	2.183	2.197	2.197	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CEA Available Capital	2.145	2.515	2.894	3.231	3.505	3.753	4.048	4.250	4.478	4.683

*As of September 30, 2014

Risk-Transfer Programs

California Earthquake Authority
Risk-Transfer Program
as of September 30, 2014

Traditional Reinsurance Contracts	Contract Period	Reinsurance Limit	12-Month Rate-on-Line	12-Month Premium
2014 January Program Contract 1	January 1, 2014 - December 31, 2014	460,758,100	5.40%	24,880,937
2014 January Program Contract 2	January 1, 2014 - December 31, 2014	50,000,000	4.95%	2,475,000
2014 January Program Contract 3	January 1, 2014 - December 31, 2014	99,999,960	6.75%	6,749,997
2014-2015 January Program Contract 1	January 1, 2014 - December 31, 2015	454,227,620	5.50%	24,982,519
2014-2015 January Program Contract 2	January 1, 2014 - December 31, 2015	49,999,996	6.45%	3,225,000
2013-2015 April Program Contract 2	April 1, 2013 - March 31, 2015	84,999,960	5.30%	4,504,998
2014-2015 April Program Contract 1	April 1, 2014 - March 31, 2015	518,583,000	3.70%	19,187,571
2014-2016 April Program Contract 1	April 1, 2014 - March 31, 2016	253,099,320	3.85%	9,744,324
2014-2016 April Program Contract 2	April 1, 2014 - March 31, 2016	122,499,960	3.75%	4,593,749
2013-2016 May Program	May 1, 2013 - April 30, 2016	100,000,000	5.60%	5,600,000
2013-2015 June Program	June 1, 2013 - May 31, 2015	50,000,000	5.65%	2,825,000
2012-2015 September Program	September 1, 2012 - August 31, 2015	100,000,000	5.70%	5,700,000
2013-2015 August Program Contract 3	August 1, 2013 - July 31, 2015	250,000,000	5.90%	14,750,000
2014-2015 August Program Contract 1	August 1, 2014 - July 31, 2015	187,500,000	4.80%	9,000,000
2014-2015 August Program Contract 2	August 1, 2014 - July 31, 2015	187,500,000	6.00%	11,250,000
2014-2015 August Program Contract 3	August 1, 2014 - July 31, 2015	136,500,000	4.50%	6,142,500
Total Traditional Reinsurance		**3,105,667,916**		

Transformer Reinsurance Contracts	Contract Period	Reinsurance Limit	12-Month Rate-on-Line	12-Month Premium
Transformer Contract 2 (2012 - I)	February 7, 2012 – February 13, 2015	150,000,000	7.44%	11,159,145
Transformer Contract 3 (2012 - II)	August 1, 2012 – August 7, 2015	300,000,000	5.04%	15,121,864
Total Transformer Reinsurance		**450,000,000**		

Total Risk-Transfer Program		**3,555,667,916**

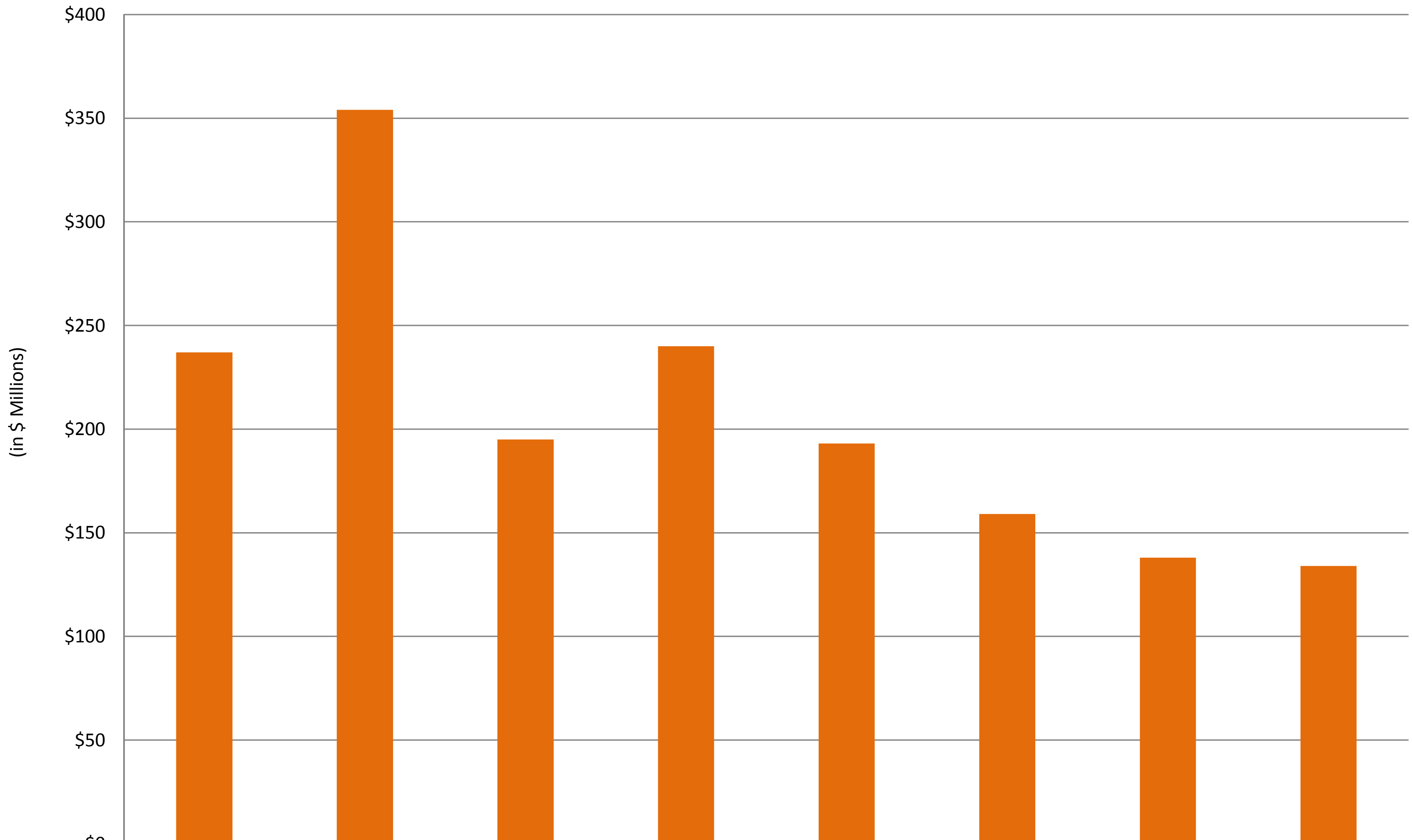
California Earthquake Authority
2014 Total Premium Risk-Transfer Program
as of September 30, 2014

Traditional Reinsurance Contracts	Contract Period	2014 Premium
2013-2014 April Program Contract 1	April 1, 2013 - March 31, 2014	10,068,675
2013-2014 August Program Contract 1	August 1, 2013 - July 31, 2014	10,324,997
2013-2014 August Program Contract 2	August 1, 2013 - July 31, 2014	4,398,333
2013-2014 August Program Contract 4	August 1, 2013 - July 31, 2014	1,035,375
2014 January Program Contract 1	January 1, 2014 - December 31, 2014	24,880,937
2014 January Program Contract 2	January 1, 2014 - December 31, 2014	2,475,000
2014 January Program Contract 3	January 1, 2014 - December 31, 2014	6,749,997
2013-2015 April Program Contract 2	April 1, 2013 - March 31, 2015	4,504,998
2014-2015 April Program Contract 1	April 1, 2014 - March 31, 2015	14,390,678
2013-2015 June Program	June 1, 2013 - May 31, 2015	2,825,000
2013-2015 August Program Contract 3	August 1, 2013 - July 31, 2015	14,750,000
2012-2015 September Program	September 1, 2012 - August 31, 2015	5,700,000
2014-2015 January Program Contract 1	January 1, 2014 - December 31, 2015	24,982,519
2014-2015 January Program Contract 2	January 1, 2014 - December 31, 2015	3,225,000
2014-2016 April Program Contract 1	April 1, 2014 - March 31, 2016	7,308,243
2014-2016 April Program Contract 2	April 1, 2014 - March 31, 2016	3,445,311
2013-2016 May Program	May 1, 2013 - April 30, 2016	5,600,000
2014-2015 August Program Contract 1	August 1, 2014 - July 31, 2015	3,750,000
2014-2015 August Program Contract 2	August 1, 2014 - July 31, 2015	4,687,500
2014-2015 August Program Contract 3	August 1, 2014 - July 31, 2015	2,559,375
Total Traditional Reinsurance Premium		**157,661,938**

Transformer Reinsurance Contracts	Contract Period	2014 Premium
Transformer Contract 1 (2011 - I)	August 2, 2011 – August 8, 2014	7,516,849
Transformer Contract 2 (2012 - I)	February 7, 2012 – February 13, 2015	11,159,145
Transformer Contract 3 (2012 - II)	August 1, 2012 – August 7, 2015	15,121,864
Total Transformer Reinsurance Premium		**33,797,858**

Total Risk-Transfer Program Premium	**191,459,796**

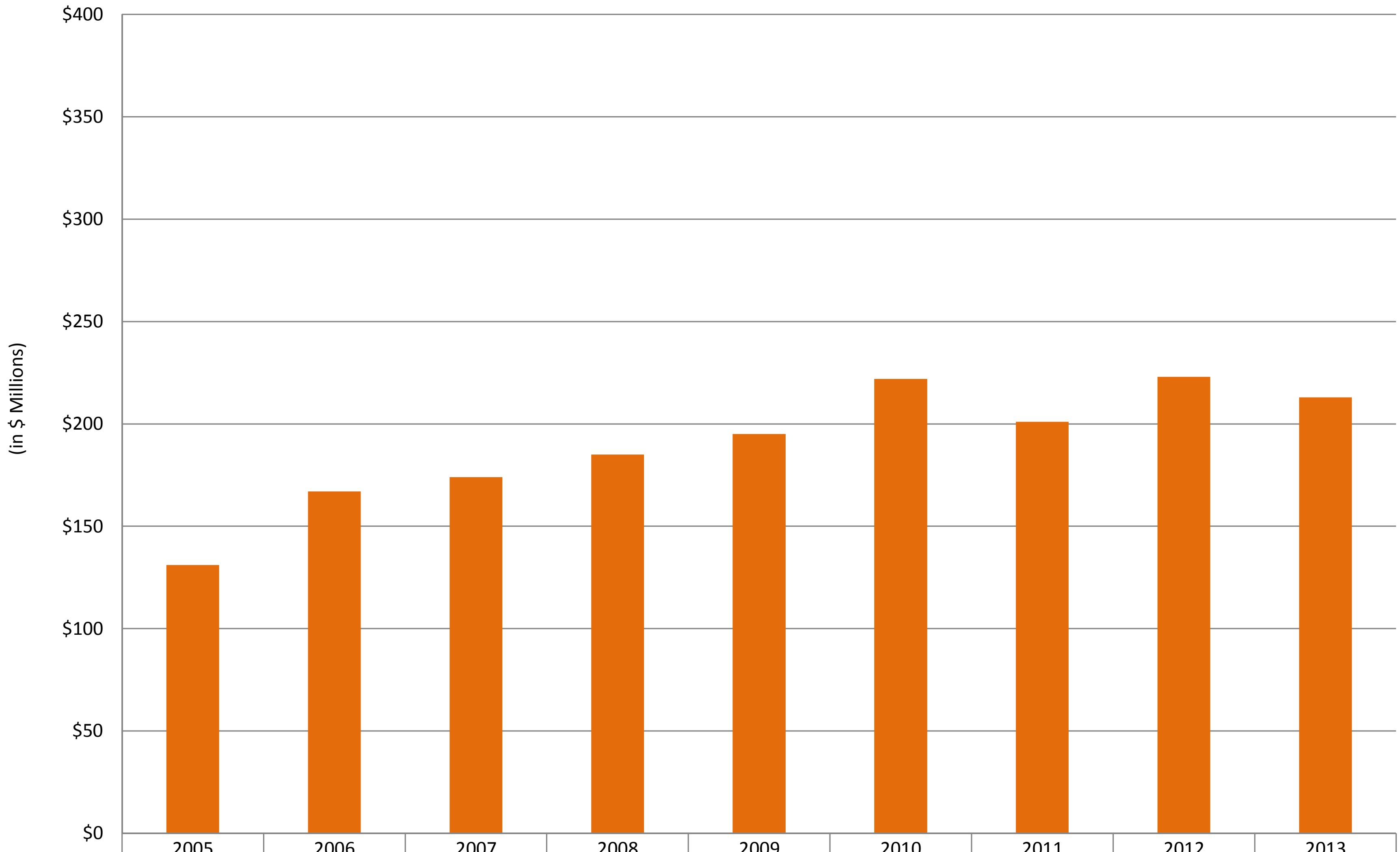
California Earthquake Authority
Annual Risk-Transfer Premium
December 31, 1997 - December 31, 2004



	1997	1998	1999	2000	2001	2002	2003	2004
Premium	$237	$354	$195	$240	$193	$159	$138	$134

(in $ Millions)

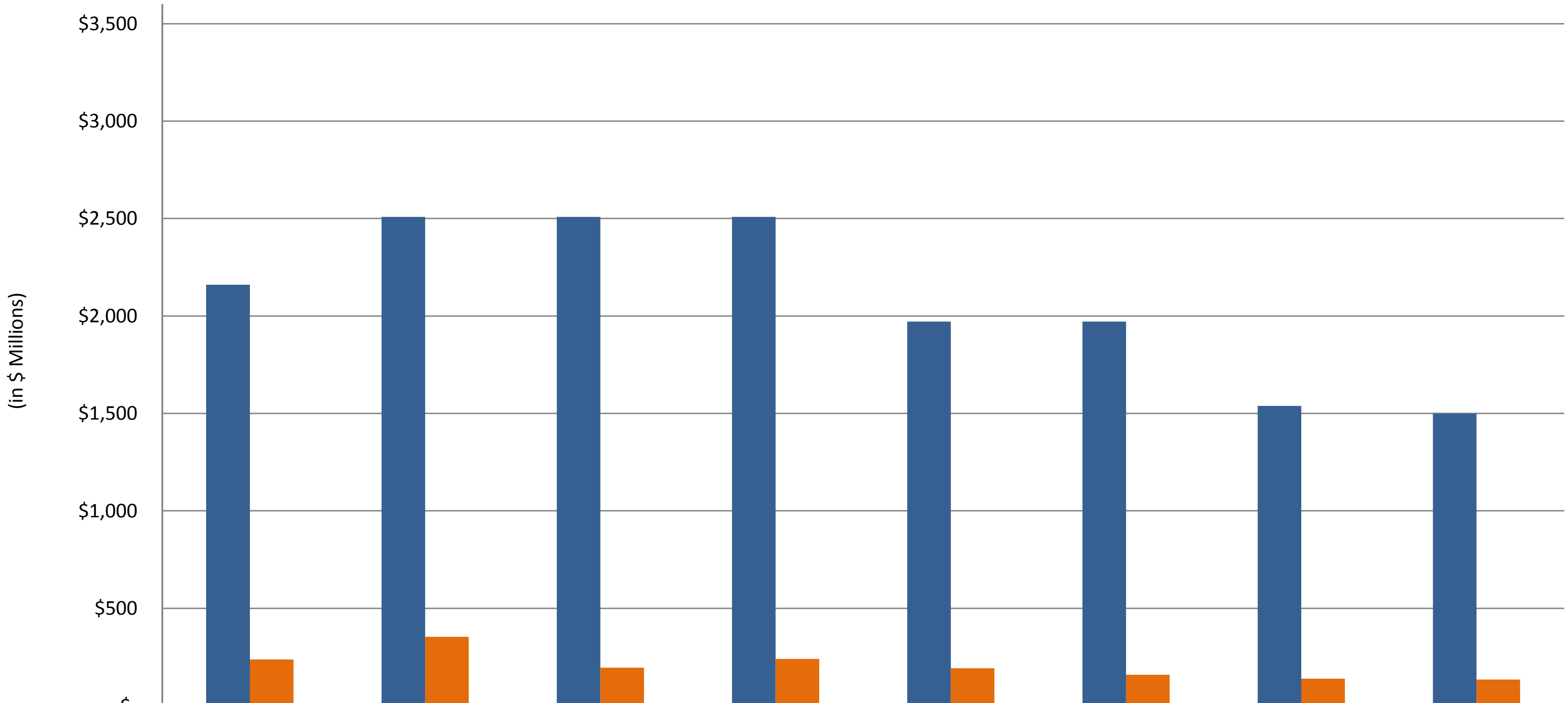
California Earthquake Authority
Annual Risk-Transfer Premium
December 31, 2005 - December 31, 2013



	2005	2006	2007	2008	2009	2010	2011	2012	2013
Premium	$131	$167	$174	$185	$195	$222	$201	$223	$213

(in $ Millions)

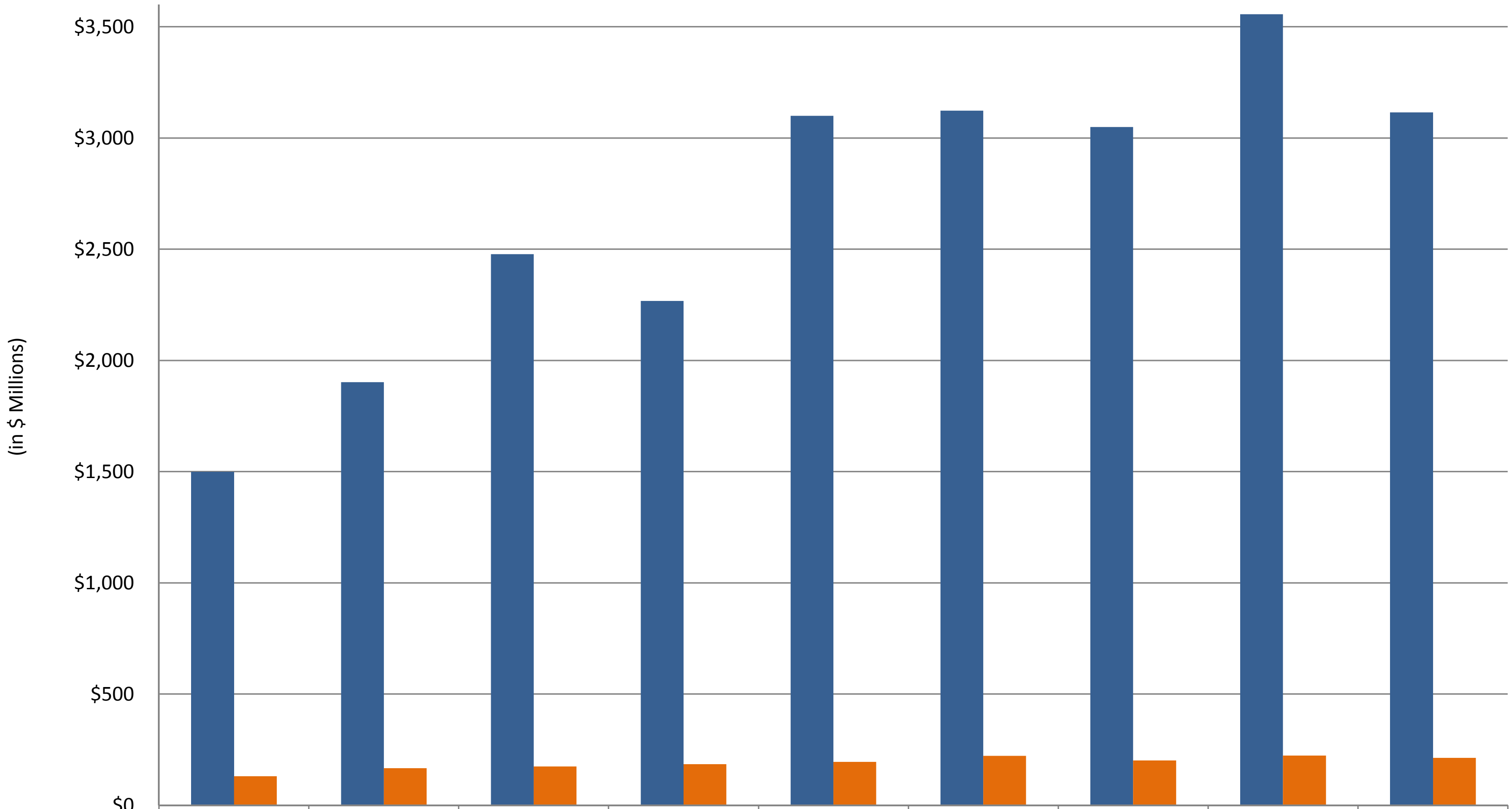
California Earthquake Authority
Annual Risk-Transfer Premium and Limit
December 31, 1997 - December 31, 2004



	1997	1998	1999	2000	2001	2002	2003	2004
Limit	$2,160	$2,509	$2,509	$2,509	$1,971	$1,971	$1,538	$1,500
Premium	$237	$354	$195	$240	$193	$159	$138	$134

(in $ Millions)

California Earthquake Authority
Annual Risk-Transfer Premium and Limit
December 31, 2005 - December 31, 2013



	2005	2006	2007	2008	2009	2010	2011	2012	2013
Limit	$1,500	$1,902	$2,478	$2,268	$3,100	$3,123	$3,050	$3,557	$3,115
Premium	$131	$167	$174	$185	$195	$222	$201	$223	$213

(in $ Millions)

Governing Board Memorandum

December 17, 2014

Agenda Item 6:	Proposed 12-month CEA Risk-Transfer Strategy for 2015
Recommended Action:	Approve revised CEA Guidelines for Securing Risk Transfer*: Traditional Reinsurance and Alternative Risk Transfer* Approve proposed 12-month CEA Risk-Transfer Strategy for 2015

Background**:**

At the December 13, 2012, Governing Board meeting, CEA staff proposed to the Board new guidelines for procuring risk transfer and claim-paying capacity, including traditional reinsurance and alternative risk-transfer methods. At the same meeting, the Board approved a resolution adopting *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (the *Guidelines*).

In accordance with the *Guidelines*, CEA staff must provide the Board for review and approval, on at least an annual basis, a comprehensive risk-transfer strategy that sets forth the CEA's basic risk-transfer goals and benchmarks for the following year.

In its search for optimal sources of claim-paying capacity, staff has balanced the following objectives:

1. The CEA must remain financially sound, by securing and maintaining claim-paying capacity sufficient for policyholder claims in the event of an earthquake while retaining essential financial-strength and credit ratings.

2. The CEA must honor its value proposition with its customers, by establishing a financial structure that makes CEA insurance as affordable as possible and while supporting the claim-paying capacity necessary to provide earthquake coverage to more Californians.

3. Generate stability and longevity for the Authority, through a financial structure that ensures the CEA's continuation and enhances its ability to serve policyholders after a significant earthquake or series of earthquakes.

The staff analysis and recommendations below focus on these priorities.

Analysis:

Historically, the CEA has relied on reinsurance—predominantly, traditional reinsurance—for about a third of its claim-paying capacity. The cost of CEA's risk-transfer purchases (both traditional and transformer reinsurance) that are required to meet the CEA's capacity needs is, and has been for years, a significant recurring expense that compels high premium rates for CEA policyholders—but at the same time most of the CEA's risk-transfer premiums pass directly to offshore reinsurers.

Available capacity and price are subject to wide swings on account of market conditions, global catastrophes, and other factors beyond CEA's control. During 2013 and 2014, reinsurance market capacity has increased, resulting in market pressure for lower pricing. Multi-year reinsurance contracts (such as are provided through the CEA's transformer-reinsurance transactions) relieve CEA of some year-to-year uncertainty, but there remain significant risks. While staff believes the risk-transfer limits CEA is likely to require for the next 12 months should be obtainable on acceptable terms, there is no guarantee that the capacity the CEA requires in the future will be available at CEA's desired pricing and on CEA's desired terms.

Because CEA has a fairly rigid financial structure that depends heavily on risk-transfer, any potential limits on traditional and transformer reinsurance-market capacity will affect, and may constrain, the overall claim-paying capacity of the CEA—and that can hinder CEA's ability to provide affordable earthquake coverage to Californians.

With three highly successful transformer-reinsurance transactions completed in 2011 and 2012, the CEA established access to the capital markets for risk-transfer, which means the CEA can access additional, strong sources of claim-paying capacity and risk-transfer, going forward.

CEA returned to the capital markets in 2014 for a new transaction with the reinsurer Ursa Re, Ltd., consisting of two reinsurance contracts representing a total limit reinsured of $400,000,000.

As has been discussed frequently and at length with the Board in connection with its approvals of past risk-transfer proposals and transactions, the risk-transfer market is dynamic: Coordinating CEA's risk-transfer needs with current market conditions is crucial, meaning the CEA must be positioned to execute risk-transfer transactions efficiently and effectively, when market conditions in the reinsurance and capital markets are, in the judgment of CEA financial staff and CEA's retained professional financial, legal, reinsurance, and risk-transfer experts, likely to be receptive to the CEA's participation and unique requirements.

The Board has well recognized these needs in recent actions: On December 13, 2012, it authorized CEA staff to accomplish these ends in a flexible, yet prudent, manner, to allow CEA to act quickly when market conditions are favorable to meet the tight time limits and deadlines inherent in highly time-sensitive risk-transfer transactions, in amounts and at pricing according to the staff's discretion, while in full compliance with the Guidelines and under documented conditions.

Results of the 2014 Risk-Transfer Strategy (Board-Approved in 2013)

During 2014 the CEA was able to obtain sufficient capacity to maintain the approved minimum claim-paying capacity of a 1-in-450-year level. In obtaining the desired capacity level, CEA was still able to reduce pricing for its risk-transfer program.

The 2014 program, as of December 1, 2014, is listed below with the pricing CEA was able to obtain for the programs:

Risk-Transfer Contracts as of 12/1/2014	Contract Period	Reinsurance Limit	12-Month Rate-on-Line	2014 Premium
2014 January Program Contract 1	January 1, 2014 - December 31, 2014	460,758,100	5.40%	24,880,937
2014 January Program Contract 2	January 1, 2014 - December 31, 2014	50,000,000	4.95%	2,475,000
2014 January Program Contract 3	January 1, 2014 - December 31, 2014	99,999,960	6.75%	6,749,997
2014-2015 January Program Contract 1	January 1, 2014 - December 31, 2015	454,227,620	5.50%	24,982,519
2014-2015 January Program Contract 2	January 1, 2014 - December 31, 2015	49,999,996	6.45%	3,225,000
2013-2015 April Program Contract 2	April 1, 2013 - March 31, 2015	84,999,960	5.30%	4,504,998
2014-2015 April Program Contract 1	April 1, 2014 - March 31, 2015	518,583,000	3.70%	14,390,678
2014-2016 April Program Contract 1	April 1, 2014 - March 31, 2016	253,099,320	3.85%	7,308,243
2014-2016 April Program Contract 2	April 1, 2014 - March 31, 2016	122,499,960	3.75%	3,445,311
2014-2015 April Program Contract 1 ADDL	October 1, 2014 - March 31, 2015	202,999,520	3.75%	1,903,121
2013-2016 May Program	May 1, 2013 - April 30, 2016	100,000,000	5.60%	5,600,000
2013-2015 June Program	June 1, 2013 - May 31, 2015	50,000,000	5.65%	2,825,000
2013-2015 August Program Contract 3	August 1, 2013 - July 31, 2015	250,000,000	5.90%	14,750,000
2012-2015 September Program	September 1, 2012 - August 31, 2015	100,000,000	5.70%	5,700,000
2014-2015 August Program Contract 1	August 1, 2014 - July 31, 2015	187,500,000	6.00%	4,687,500
2014-2015 August Program Contract 2	August 1, 2014 - July 31, 2015	187,500,000	4.80%	3,750,000
2014-2015 August Program Contract 3	August 1, 2014 - July 31, 2015	136,500,000	4.50%	2,559,375
Ursa Re Ltd Contract 1	December 1, 2014 - November 30, 2017	200,000,000	5.05%	841,667
Ursa Re Ltd Contract 2	December 1, 2014 - November 30, 2017	200,000,000	3.54%	589,167
Transformer Contract 2 (2012-I)	February 7, 2012 - February 13, 2015	150,000,000	7.44%	11,159,145
Transformer Contract 3 (2012-II)	August 1, 2012 - August 7, 2015	300,000,000	5.04%	15,121,864
Total Risk-Transfer Program		**4,158,667,436**		

New contracts incepted in 2014

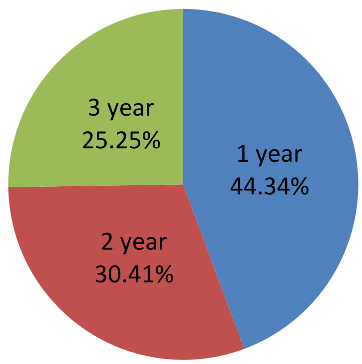
The table above shows the CEA's purchased risk-transfer contracts throughout the year, and the resulting program minimizes the risk of adverse economic conditions having a negative effect on pricing. By buying throughout the year, the CEA can better match its need for risk-transfer to changes in exposures.

In 2014, the CEA continued to diversify its risk-transfer program by executing several multi-year reinsurance contracts, which together provide the CEA with uninterrupted long-term financing at lower prices. Multi-year contracts reduce the risk of a single year's market conditions' preventing the CEA from obtaining risk-transfer capacity at suitable pricing, on favorable terms.

CEA entered into 13 new risk-transfer contracts in 2014, of which five were multi-year.

CEA's risk-transfer program has provided staff the ability to increase the risk-transfer limit while reducing risk-transfer expense.

1-Year, 2-Year, and 3-Year
Contract Limits
Based on Contracts in Effect on December 1, 2014



CEA Guidelines for Purchase of Claim-Paying Capacity

Revisions:

As of December 13, 2012, the CEA updated the *Guidelines*, consistent with the CEA's practice of reviewing those *Guidelines* from time-to-time.

After review and further analysis, CEA staff has determined that the *Guidelines*' ratings tables should be revised to more accurately reflect rating-systems comparisons among Moody's, A.M. Best, and Standard & Poor's. Tables 1 and 2 are used to calibrate a reinsurer's CEA participation level to its ratings and policyholder surplus, and they have been revised to reflect the adjustment to Moody's ratings in the tables.

This change will have a positive effect on CEA reinsurers.

A redline version of the proposed Guidelines appears as *Attachment A*. A clean version of the proposed Guidelines appears as *Attachment B*.

12-Month Risk-Transfer Strategy

Staff proposes a 12-month risk-transfer strategy that will include risk-transfer programs of both traditional and transformer reinsurance, contributing appropriately and efficiently to a total claim-paying capacity of (at a minimum) a 1-in-450-year level and (at a maximum) a 1-in-550-year level.

CEA staff will strive in all transactions to obtain lower pricing and multi-year contracts with world-wide reinsurers and risk-transfer capital markets.

In keeping with past practices and Board preferences, staff will report the details of all transactions to the Board at the first Board meeting following the effective date of each transaction.

Recommendations:

Staff recommends the Board approve the revised *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* and approve the proposed 12-month Risk-Transfer Strategy that is described above.

California Earthquake Authority

GUIDELINES FOR SECURING RISK TRANSFER: Traditional Reinsurance and Alternative Risk Transfer

Adopted/Approved by the CEA Governing Board on December 13, 2012
Revised/Approved by the CEA Governing Board on December 17, 2014

TABLE OF CONTENTS

Introduction 1
Goals 2
General Strategy 2
Traditional Reinsurance 2
Stability of Risk Transfer Program 3
Financial Strength of Reinsurer 4
Alternative Risk Transfer 9
Annex A: Preferred Terms for ILS Transactions 12
Annex B: Preferred ILS Operating Guidelines 14

INTRODUCTION

The CEA's *Guidelines for Sources of Claim-Paying Capacity: Providers and Products* were first issued in 1999 (referred to as the "Original Guidelines") and have been modified and updated periodically. The Original Guidelines included recommendations of the best reinsurance- related business practices for the CEA in connection with accessing the reinsurance market, with a primary focus on traditional reinsurance. They described how the CEA evaluates reinsurers and reinsurance products and also provide minimum standards that reinsurance providers should meet to qualify as suitable for the CEA. These *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (referred to as the "Guidelines"), which incorporate and build upon the Original Guidelines, seek to establish a more comprehensive approach by recommending best business practices for accessing the traditional reinsurance market as well as alternative risk transfer markets, such as the alternative risk transfer products funded by the sale of catastrophe bonds, collateralized reinsurance issued by institutional investors (such as hedge funds and pension plans) that are not traditional reinsurers, and other similar markets. By adopting these Guidelines, the CEA's Governing Board recognizes the evolution of alternative risk transfer since the Original Guidelines were first issued in 1999 and reaffirms its commitment to stable and efficient risk transfer, whether in the traditional or alternative markets.

These Guidelines may be updated periodically by the CEA's Governing Board in its discretion, including to respond to changing conditions in the reinsurance and broader financial markets, as well as legal and regulatory developments.

GOALS

These Guidelines seek to accomplish four principal goals, presented in order of priority, while mitigating the CEA's potential legal liability and ensuring regulatory compliance:

1. *Financial Strength:* To minimize the risk to the CEA that a provider might fail to pay claims under a reinsurance contract because of the provider's financial condition.

2. *Stability:* To encourage the CEA to secure claim-paying capacity from providers and use products that, together, can endure all market conditions.

3. *Efficiency:* To enable the CEA to select the most efficient claim-paying capacity, including at rates on line that are competitive with other sources of claim-paying capacity.

4. *Flexibility:* To provide for reasonable flexibility by allowing for alternative products and stable sources of claim-paying capacity that are more cost-effective.

GENERAL STRATEGY

The CEA recognizes that it must be in a position to access the entire global risk transfer market to meet its capacity needs, including through the purchase of traditional reinsurance and the use of alternative risk transfer structures. In order to most effectively accomplish the four principal goals outlined above, the CFO, in consultation with the CEO, the General Counsel, other appropriate staff or officers at the CEA, and the Governing Board, must prepare and submit to the Governing Board for its approval, on at least an annual basis, a comprehensive risk transfer strategy that sets forth the basic risk transfer goals and benchmarks for the ensuing year, including potential capacity constraints and anticipated exposures to be transferred to the risk transfer markets.

TRADITIONAL REINSURANCE

The Guidelines in this section apply to all providers of traditional reinsurance and all traditional reinsurance contracts to which the CEA is a party.

STABILITY OF RISK TRANSFER PROGRAM

Unlike a private insurance company, the CEA cannot go without claim-paying capacity if reinsurance market capacity diminishes or demand for reinsurance capacity exceeds supply— recoveries from sources of external capacity are a direct source of the CEA's financial ability to pay its policyholders' claims. If risk capital (reinsurance capacity) becomes unavailable, the CEA's claim-paying capacity will shrink and it could be materially and adversely affected. To provide uninterrupted availability of earthquake coverage for California's residential property insurance policyholders, the CEA must endeavor to buy from providers that can endure all market conditions.

To most effectively accomplish this goal, the CEA will consistently consider the following steps:

1. Enter into multi-year agreements when cost-effective and advantageous under the existing economic environment.

2. Take steps to ensure that future markets are available to which CEA risk can be transferred.

3. To the extent feasible, transact directly with entities that are the primary bearers of the ultimate risk (the "primary risk bearers").

4. Distinguish clearly between primary and secondary market capacity.

The CEA distinguishes primary market capacity from secondary marked capacity as follows:

- Primary market capacity offers direct contact between the CEA and the ultimate risk bearer and is therefore generally more stable than secondary capacity. Direct contact will generally permit a more thorough and effective exchange of knowledge between the CEA and the ultimate risk bearer—this direct collaboration can mature into a long-term relationship that enhances uninterrupted access to risk capital, which is crucial to the CEA's mission.

- Secondary market capacity means the entity executing the transaction with the CEA is not the ultimate risk bearer—instead, it may be a fronting entity that is a conduit of risk and premium to a retrocessionnaire or bondholder (in secondary markets). In such a case, while the contract counterparty is directly liable to the CEA under the terms of the reinsurance contract for the payment of claims, it is the secondary market that has accepted the ultimate risk of CEA loss.

Because of certain general advantages of primary market capacity, the CEA prohibits any *specific retrocession* of CEA risk without the advance written permission of the CEA. In those cases where the CEA has approved the retrocession of CEA risk, such risk should be applied against the maximum permitted line of the direct reinsurer and each retrocessionaire, as described in the next section of these Guidelines.

The CEA has relied on reinsurance intermediaries and independent financial consultants to help CEA evaluate the economic environment at the time of securing reinsurer participations, and to consider reinsurers that might occasionally (with CEA permission) use retrocessional reinsurance to manage risk.

5. The CEA cannot depend entirely on a few entities or markets to provide all its claim-paying capacity. An inordinately large allocation to one reinsurer could disadvantage the CEA. The CEA at its sole discretion may moderate this guideline in response to compelling and appropriate circumstances.

FINANCIAL STRENGTH OF REINSURER

The reinsurer's financial strength and its ability to fulfill its promise of claim-paying obligations are the primary considerations in determining whether a reinsurer qualifies to do business with the CEA. Depending on the severity of the CEA's losses, a reinsurer's failure to make timely payment to the CEA could be the equivalent of a failed promise to a CEA policyholder, because reinsurance recoveries are a primary source of the CEA's ability to pay claims. Accordingly, in obtaining claim-paying capacity from traditional reinsurance sources, the CEA should apply the following criteria at inception of the reinsurance contact, but also should maintain the flexibility to take appropriate action, including by means of the credit enhancements described below, if these criteria are no longer satisfied.

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

General Criteria

To qualify as a CEA reinsurer, a reinsurer must meet both of the following standards (all amounts in US dollars):

- Policyholders' surplus (PHS) of at least $150 million; and
- An A.M. Best financial strength rating of at least A-, or a Standard & Poor's (S&P) financial strength rating of at least A-, or a Moody's financial strength rating of at least ~~A2~~A3.

The CEA should use the following criteria to allocate lines of reinsurance to reinsurers:

1. The rating agencies A.M. Best, S&P, and Moody's assign ratings to reinsurers that signify a reinsurer's financial strength. Each rating agency analyzes key financial ratios to measure leverage, liquidity, asset quality, and other balance-sheet and income-statement indicators of financial strength. They also assess management qualifications and take into account a reinsurer's exposure to natural disasters. It is therefore appropriate that the rating A.M. Best, S&P, or Moody's assigns a reinsurer should influence the size of that reinsurer's participation in CEA reinsurance contracts.

2. "Economic mass" — a company's policyholders' surplus — is an indicator of financial staying power and should directly influence the CEA participation allocation. No reinsurer should be allocated combined participating shares in CEA reinsurance contracts for a given contract period that would generate total liabilities (not including exposures to reinstated limits, if any) greater than 10% of that reinsurer's PHS.

3. To properly scale a reinsurer's CEA participation level to its rating and PHS, the following guidelines will be used when allocating lines of reinsurance contracts: *For a company that is rated by two or more of the rating agencies mentioned above, the lowest of the ratings will apply in apply these guidelines.

Table 1

(For reinsurers with PHS between $ 150 & $300 million)

Maximum Line (% of PHS)	A.M. Best Rating*	Standard & Poor's Rating*	Moody's Rating*
0% — 1 .5%	A-	A-	~~A2 –~~A3
1.51%— 3.0%	A	A or A+	A1 or A2
3.01% — 6.0%	A+ or A++	AA- to AAA	Aaa - Aa3

Table 2

(For reinsurers with PHS greater than $300 million)

Maximum Line (% of PHS)	A.M. Best Rating*	Standard & Poor's Rating*	Moody's Rating*
0% — 3.0%	A-	A-	~~A2 –~~A3
3.01% — 5.5%	A	A or A+	A1 to A2
5.6% — 8.0%	A+	AA- to AA~~+~~	Aa~~1~~2 - Aa3
8.01%— 10.0%	A++	AA+ to AAA	Aa1 to Aaa

*For a company that is rated by two or more of the rating agencies mentioned above, the lowest of the financial strength rating will apply in applying these guidelines.

The maximum line allocation is calculated as follows: The sum of all the reinsurer's authorized lines on all CEA reinsurance contracts that are or will be effective for the same period is compared to the maximum permitted line from Table 1 or Table 2. The reinsurer's authorized lines that will be compared to the maximum permitted line will be the aggregate of all lines of CEA risk assumed by reinsurer for that period, regardless of whether any such lines are assumed as primary market capacity, as a fronting entity, as a retrocessionaire, or in any combination of these.

4. The CEA buys reinsurance from the global reinsurance community. Many of the CEA's reinsurers are not domiciled in the United States, and many of those reinsurers provide financial reports based on currencies other than U.S. dollars. Exchange rates fluctuate daily, and an exchange rate moving downward in relation to the U.S. dollar means diminished financial security for the CEA. To manage this risk, the CEA will employ the following procedure:

a. In assigning reinsurance-contract participations, the CEA will calculate a non-U.S.-domiciled reinsurer's PHS based on its domicile's exchange rate against the U.S. dollar not more than 30 days before the date of binding that reinsurer's participation in a reinsurance contract. This is called the "Base Exchange Rate."

b. If during the term of a reinsurance contract a reinsurer domicile's exchange rate falls below the Base Exchange Rate, the CEA will reevaluate compliance with the Guidelines for any reinsurer based in that domicile.

Credit Enhancement

The CEA, at its sole discretion, may accept certain credit-enhancement tools in support of reinsurance-line allocations for reinsurers, including reinsurers participating in Alternative Transactions, that do not meet the above financial strength criteria and would therefore ordinarily fall outside the Guidelines. This guideline, which permits the CEA certain flexibility in waiving or modifying allocation guidelines, is not intended to reserve or grant, and does not reserve or grant, any rights whatsoever to any person or entity other than the CEA and its Governing Board. Credit enhancement may include, without limitation, any of the following:

1. ***Collateralization.*** The CEA may allow Reinsurers to provide the CEA with collateral, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All such Collateral must be posted in a collateral account established in a U.S.- based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved by the CEA. The collateral account control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup (as that subgroup is described in the Alternative Risk Transfer section of these Guidelines), acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

2. ***Letters of Credit.*** The CEA may allow reinsurers to provide one or more letters of credit, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All letters of credit must meet appropriate format and security standards, which may include, without limitation, the following criteria:

a. The letter of credit is issued by a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best.

b. The letter of credit is a clean, irrevocable, unconditional direct pay letter of credit payable to the CEA and in form and substance satisfactory to the CEA.

c. The letter of credit is issued for a term expiring no earlier than the termination date of the reinsurance contract for which the reinsurer is securing its line by the letter of credit, and includes an evergreen provision that automatically extends the term for at least one additional year beyond the expiration date unless the issuer of the letter of credit gives written notice of non-renewal to the CEA by certified mail not less than 60 days prior to the expiration date, and in the event of such a non-renewal or other expiration of the letter of credit, the subscribing reinsurer agrees to obtain replacement letters of credit to the extent necessary to comply with its collateralization requirements.

3. ***Parental Guarantees.*** A reinsurer that has exceptionally strong capitalization, or a company that is affiliated with a strongly capitalized parent that is willing to provide, and does provide, a written parental guarantee, may be acceptable even if it fails to meet the criteria in the above allocation guidelines. In deciding whether to accept a parental guarantee as a credit enhancement, the CEA will consider the following:

a. A subsidiary of a quality parent typically enjoys superior liquidity and access to capital.

b. A strong parent would likely not abandon a failed subsidiary and would fulfill the subsidiary's obligations because of the damage that abandonment would inflict on the parent's reputation. Parent companies that are not insurers, however, should be carefully examined for appropriate risk appetite and other desirable, relevant attributes.

The CEA, in its discretion, may require a reinsurer to provide credit enhancements in support of the entire line allocated to the reinsurer, or only that portion of the reinsurer's allocated line that exceeds the amount of that would otherwise be permissible under these Guidelines.

Lloyd's Syndicates

The financial statements of syndicates at Lloyd's do not state a policyholders' surplus; therefore, unlike with non-Lloyd's reinsurers, policyholders' surplus cannot be used as an allocation criterion for Lloyd's. The CEA must instead use a "policyholders' surplus equivalent" in lieu of using policyholders' surplus. The CEA will use one or more of the following, as specified in this paragraph, as policyholders' surplus equivalents:

- The syndicate's premium receipts plus its reserves. This is commonly referred to as "Syndicate Level Assets."
- Any additional capital dedicated by a syndicate's member(s) for the syndicate's liabilities by a deposit of funds into any of three trust funds in which members' assets may be held—the Lloyd's deposit fund, the special reserve fund, or the personal reserve fund—each of which is available

to meet cash calls made on the member with respect to syndicate needs. This is commonly referred to as "Members' Funds at Lloyd's."

- The syndicate's volume of business measured in gross written premiums net of acquisition costs underwritten by a syndicate's business plan accepted by Lloyd's (Lloyd's requires syndicates to have a stated amount of capital to support the amount of gross written premiums in the business plan). This is commonly referred to as the syndicate's "stamp capacity."

For purposes of determining a syndicate's maximum line allocation, the CEA will calculate the policyholders' surplus equivalent as follows:

- If the syndicate has disclosed to the CEA both its Syndicate Level Assets and its dedicated Members' Funds at Lloyd's, the combination of Syndicate Level Assets and dedicated Members' Funds at Lloyd's will be used as the policyholders' surplus equivalent.

- If the syndicate has disclosed to the CEA its Syndicate Level Assets but not its dedicated Members' Funds at Lloyd's, the Syndicate Level Assets will be used as the policyholders' surplus equivalent.

- If the syndicate has not disclosed to the CEA its Syndicate Level Assets, the syndicate's stamp capacity will be used as the policyholders' surplus equivalent.

The exchange rate for Syndicate Level Assets, dedicated Members' Funds at Lloyd's, and stamp capacity will be the market exchange rate, Pounds Sterling to U.S. Dollar, in effect on the date CEA commences marketing the reinsurance program.

If a syndicate has a financial strength ~~n~~ rating from either A.M. Best, S&P, or Moody's, Table 1 or Table 2, above, will be used to calculate the syndicate's maximum line allocation, based on the syndicate's appropriate policyholders' surplus equivalent, converted to reflect the market exchange rate, and its rating. If a syndicate does not have a financial strength ~~n~~ rating from A.M. Best, S&P, or Moody's , that syndicate's appropriate policyholders' surplus equivalent, converted to reflect the market exchange rate, will be calculated using Table 3, below.

Table 3

Lloyd's of London: Non-Rated Syndicates Policyholders' Surplus Equivalent (Syndicate Level Assets, Members' Funds at Lloyd's, or Stamp Capacity) Conversion to Maximum Line Allocation

Policyholders' Surplus Equivalent (millions)	Maximum Line (% of Policyholders' Surplus Equivalent)
< $150	2%
> $150	3%

The CEA requires that all its reinsurance contracts grant the CEA the right (but not the obligation) to reduce or terminate a reinsurer's participation share, before contract expiration, if the reinsurer's financial strength weakens, causing the reinsurer's existing participation allocation to exceed what the Guidelines would permit.

Expatriate Companies

The CEA will not contract for reinsurance capacity with a reinsurer that meets the criteria as an "expatriate company." As used in these Guidelines, an expatriate company is a U.S. corporation that relocates, whether physically on solely on paper, to an offshore tax-haven location. If the CEA is unable to secure the desired or necessary reinsurance capacity without contracting with an expatriate company, the CEA staff will present to the CEA Governing Board the reasons that the CEA should contract with the expatriate company and ask for the Governing Board's approval to execute the contract.

EFFICIENCY

Because a competitive market environment benefits the CEA when it negotiates terms for traditional reinsurance, the CEA should:

1. Work to place cost-effective alternatives to traditional reinsurance;

2. Provide reinsurers detailed underwriting information through its intermediaries.

Appropriate use of secondary capital market transactions can supplement traditional reinsurance capacity. Certain negative attributes of some secondary capital market products (instability, inflexibility, and lack of claim-paying track record) may be overcome by achieving the desirable attributes of lower cost, encouragement of competition among reinsurers, and diversification of sources of claim-paying capacity.

FLEXIBILITY

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

ALTERNATIVE RISK TRANSFER

The Guidelines in this section apply to all alternative risk transfer transactions in which the CEA is a party (referred to as "Alternative Transactions"), including reinsurance funded by the proceeds of a catastrophe bond issued by a special purpose reinsurer and other transactions funded by insurance-linked securities (referred to collectively as "ILS Transactions"), collateralized reinsurance with institutional investors, such as hedge funds and pension plans, and similar transactions.

The CEA, at its sole discretion, may enable the development of and utilize Alternative Transactions, that may bring greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity, in order to, among other things:

- Attract capacity at more efficient terms;
- Attract capacity that is comparable with the pricing of traditional reinsurance markets; or
- Enable the development of alternative markets or alternative financial products, which may bring, without limitation, greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity.

ESTABLISHMENT OF ADVISORY SUBGROUP

The CEA will establish a Alternative Risk Transfer Advisory Subgroup (referred to as the "ART Subgroup"), which will have primary responsibility for overseeing and approving the structural and pricing terms of, and any publicity in connection with, each Alternative Transaction. The ART Subgroup will be composed of the CEO, the CFO and the General Counsel, together with any other CEA staff or officers deemed appropriate by the ART Subgroup to oversee CEA involvement in any Alternative Transactions. The ART Subgroup will operate through the unanimous consensus of the CEO, the CFO and the General Counsel. Formal meetings of the ART Subgroup and approval of matters before the ART Subgroup through formal voting procedures will not be required.

Before approving any Alternative Transaction, the ART Subgroup should consider whether the proposed Alternative Transaction:

- Is economically reasonable for the CEA in light of market conditions;
- Furthers the CEA's claim-paying capacity without subjecting it to unreasonable exposure to market, legal or regulatory risk; and
- Poses an undue risk of harm to the CEA's stature or reputation.

In connection with these considerations, the ART Subgroup may consult independent third party advisors such as the CEA's reinsurance intermediaries and independent financial advisor to analyze and discuss with the ART Subgroup the benefits, risks and opportunities of any proposed Alternative Transaction. CEA staff should appropriately document discussions and decisions related to these topics.

FLEXIBILITY

As the CEA participates in various Alternative Transactions and gains experience regarding the benefits and risks involved with Alternative Transaction structures, the ART Subgroup shall reevaluate these Guidelines to ensure that risks are mitigated and that potential benefits are not unduly limited by applications of the Guidelines and the procedures mandated by the Guidelines.

PRICING

The final pricing of any Alternative Transaction must be approved by the CFO in consultation with the CEO and any other appropriate professionals at the CEA appointed by the ART Subgroup to advise on pricing matters. The CFO should solicit the views of reasonably selected market professionals to assist the CEA in determining whether an Alternative Transaction is competitive from a pricing standpoint, taking into account the relative benefits of the transaction with other forms of risk transfer.

NEGOTIATION OF TERMS

It is recommended that the CEA's internal and external counsel (if any) either draft or review the terms of any reinsurance agreement entered into by the CEA in connection with an Alternative Transaction to ensure that the terms are consistent with appropriate market standards and create effective risk transfer from the CEA's perspective. Annex A of these Guidelines describes certain preferred terms for ILS Transactions.

OPERATING GUIDELINES

In connection with its procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction), it is recommended that the CEA and its staff comply with the preferred guidelines attached as Annex B and any other operating guidelines provided by the CEA's internal and external counsel in connection with ILS

Transactions. The operating guidelines attached as Annex B may be amended at any time with the prior approval of the ART Subgroup, and should be reviewed periodically for changes to applicable law.

ANNEX A

PREFERRED TERMS FOR ILS TRANSACTIONS

The following is a non-exhaustive description of preferred terms for any ILS Transaction through which the CEA obtains reinsurance coverage. In describing these preferred terms, it is expressly understood that the ILS market continually evolves and different reinsurance structures may be desirable to the CEA depending on pricing, the CEA's needs and other factors. In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may deviate from these preferred terms if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

1. The reinsurance agreement will indemnify the CEA on an excess of loss aggregate annual basis for a period of not less than three years.

2. The aggregate limit of the reinsurance agreement will be fully collateralized to the aggregate limit of the agreement. The proceeds from the sale of the bonds must be deposited into a collateral account established in a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved by the CEA. The collateral control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its sole option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup, acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

3. The CEA will be obligated under the reinsurance agreement to make periodic reinsurance premium payments to the reinsurer on a quarterly basis.

4. Only if required by the rating agency retained by the reinsurer to rate the security, the CEA will deposit into an escrow account for the benefit of the reinsurer one quarter of annual reinsurance premium payments.

5. The reinsurance agreement will have separate retentions for each annual risk period. The dollar amount of the retention will be reset and recalculated for the second and third annual periods pursuant to procedures agreed to by and between the CEA and the reinsurer.

6. The reinsurance contract will provide for one or more optional extension periods allowing the CEA, in its sole discretion and at its election, to extend the term of the reinsurance contract beyond its scheduled termination date for the limited purpose of submitting loss payment requests and receiving loss payments. The aggregate time of all such optional extension periods will be at least 18 months.

7. The CEA will pay negotiated fees and expenses upon successful completion of a risk-transfer transaction by the reinsurer. If the risk-transaction is not successfully completed by the reinsurer, the CEA will not be obligated to pay or reimburse any person or entity (including, without limitation, the reinsurer, the underwriter, or any service providers engaged by the reinsurer or underwriter) for any expenses and fees associated with the transaction.

ANNEX B

PREFERRED ILS OPERATING GUIDELINES

The following preferred operating guidelines relate specifically to the procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction).

Publicity

Any interviews or public presentations (including conferences and seminars) by an officer, director or employee of the CEA in connection with its participation as a cedent in an ILS Transaction should be approved by the ART Subgroup. In making any public statements, the CEA should be careful not to condition the market for specific securities offerings that are underway or are contemplated in the future. For example, the CEA should not mention the specific size of a contemplated offering or the at-risk layer, the anticipated launch date, the underwriters, the anticipated pricing parameters or the expected loss of the transaction. In addition, to the extent practicable, the CEA should seek to require any reporter with whom an interview has been granted to submit a draft of the article for review as a condition of access to CEA officers and employees.

Offering Materials

All CEA information provided by the CEA to any party involved in an ILS Transaction and that may reasonably foreseeably be used in connection with the reinsurer's preparation of offering materials should be subject to the review and approval of appropriate personnel appointed by the ART Subgroup in order to determine, at the time the information was provided, whether the information (i) is accurate in all material respects and (ii) does not omit to state a material fact necessary in order to make the statements contained therein, in the light of the circumstances under which they were made, not misleading.

If the CEA determines to participate in a roadshow or other investor presentation, as approved by the ART Subgroup, it is recommended that the CEA's participation be scripted in advance (including in high-level PowerPoint slides), with the script subject to review by the appropriate legal staff at the CEA. Material non-public information about the CEA should be held confidential and not disclosed unless and until the CEA determines to publicly disclose that information.

Prior to the closing of an ILS Transaction, it is recommended that the CEA confirm that transaction counsel for the reinsurer has delivered a customary 10b-5 negative assurance letter to the underwriters.

Subject Business

Internal procedures should be put in place to ensure that the underlying subject business data and policies provided to the reinsurer, which in turn may be provided to a third party risk modeling firm, is accurate and constitutes the complete set of business that the CEA intends to be covered by the reinsurance agreement.

Statements Regarding Offering Materials

Statements implying that the CEA has or had ultimate authority over any ILS Transaction or undermining the reinsurer's independence or ultimate authority should be avoided. For instance, the CEA should be careful to describe the CEA's role in an insurance-linked securities transaction from the perspective of an insurance company purchasing reinsurance and not as the "sponsor" of the transaction or the "issuer" of the insurance-linked securities. In other words, the CEA purchases reinsurance that is transformed and funded through a capital markets offering by an independent special purpose insurer, but it does not have control or authority over the reinsurer or the offering.

Indemnification

The CEA may agree to indemnify the reinsurer for claims relating to inaccuracies in CEA policy data used in the ILS Transaction. However, the CEA will not agree to provide any other indemnification for the transfer of the risk from the reinsurer into the capital markets, except through the procurement of an insurance policy where the risk of indemnification is not borne by the CEA.

Underwriters

While ultimate selection may be within the discretion of the reinsurer, the underwriters assisting the reinsurer in the effort of transferring the risk into the capital markets should be acceptable to the CEA from a reputation and experience perspective, including that:

- The lead underwriter has been in business for at least five years and has a satisfactory reputation in connection with insurance-linked securities offerings and the broader capital markets;
- The underwriters are appropriately licensed as broker-dealers to perform the functions required of them under the purchase agreement with the reinsurer; and
- The underwriters have appropriate experience in transferring insurance risk to the capital markets.

Periodic Training

The ART Subgroup should ensure that all CEA staff involved in ILS Transactions periodically receive appropriate training regarding the legal and regulatory framework applicable to ILS Transactions.

California Earthquake Authority

GUIDELINES FOR SECURING RISK TRANSFER: Traditional Reinsurance and Alternative Risk Transfer

Adopted/Approved by the CEA Governing Board on December 13, 2012
Revised/Approved by the CEA Governing Board on December 17, 2014

TABLE OF CONTENTS

Introduction 1
Goals 2
General Strategy 2
Traditional Reinsurance 2
Stability of Risk Transfer Program 3
Financial Strength of Reinsurer 4
Alternative Risk Transfer 9
Annex A: Preferred Terms for ILS Transactions 12
Annex B: Preferred ILS Operating Guidelines 14

INTRODUCTION

The CEA's *Guidelines for Sources of Claim-Paying Capacity: Providers and Products* were first issued in 1999 (referred to as the "Original Guidelines") and have been modified and updated periodically. The Original Guidelines included recommendations of the best reinsurance- related business practices for the CEA in connection with accessing the reinsurance market, with a primary focus on traditional reinsurance. They described how the CEA evaluates reinsurers and reinsurance products and also provide minimum standards that reinsurance providers should meet to qualify as suitable for the CEA. These *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (referred to as the "Guidelines"), which incorporate and build upon the Original Guidelines, seek to establish a more comprehensive approach by recommending best business practices for accessing the traditional reinsurance market as well as alternative risk transfer markets, such as the alternative risk transfer products funded by the sale of catastrophe bonds, collateralized reinsurance issued by institutional investors (such as hedge funds and pension plans) that are not traditional reinsurers, and other similar markets. By adopting these Guidelines, the CEA's Governing Board recognizes the evolution of alternative risk transfer since the Original Guidelines were first issued in 1999 and reaffirms its commitment to stable and efficient risk transfer, whether in the traditional or alternative markets.

These Guidelines may be updated periodically by the CEA's Governing Board in its discretion, including to respond to changing conditions in the reinsurance and broader financial markets, as well as legal and regulatory developments.

GOALS

These Guidelines seek to accomplish four principal goals, presented in order of priority, while mitigating the CEA's potential legal liability and ensuring regulatory compliance:

1. *Financial Strength:* To minimize the risk to the CEA that a provider might fail to pay claims under a reinsurance contract because of the provider's financial condition.

2. *Stability:* To encourage the CEA to secure claim-paying capacity from providers and use products that, together, can endure all market conditions.

3. *Efficiency:* To enable the CEA to select the most efficient claim-paying capacity, including at rates on line that are competitive with other sources of claim-paying capacity.

4. *Flexibility:* To provide for reasonable flexibility by allowing for alternative products and stable sources of claim-paying capacity that are more cost-effective.

GENERAL STRATEGY

The CEA recognizes that it must be in a position to access the entire global risk transfer market to meet its capacity needs, including through the purchase of traditional reinsurance and the use of alternative risk transfer structures. In order to most effectively accomplish the four principal goals outlined above, the CFO, in consultation with the CEO, the General Counsel, other appropriate staff or officers at the CEA, and the Governing Board, must prepare and submit to the Governing Board for its approval, on at least an annual basis, a comprehensive risk transfer strategy that sets forth the basic risk transfer goals and benchmarks for the ensuing year, including potential capacity constraints and anticipated exposures to be transferred to the risk transfer markets.

TRADITIONAL REINSURANCE

The Guidelines in this section apply to all providers of traditional reinsurance and all traditional reinsurance contracts to which the CEA is a party.

STABILITY OF RISK TRANSFER PROGRAM

Unlike a private insurance company, the CEA cannot go without claim-paying capacity if reinsurance market capacity diminishes or demand for reinsurance capacity exceeds supply— recoveries from sources of external capacity are a direct source of the CEA's financial ability to pay its policyholders' claims. If risk capital (reinsurance capacity) becomes unavailable, the CEA's claim-paying capacity will shrink and it could be materially and adversely affected. To provide uninterrupted availability of earthquake coverage for California's residential property insurance policyholders, the CEA must endeavor to buy from providers that can endure all market conditions.

To most effectively accomplish this goal, the CEA will consistently consider the following steps:

1. Enter into multi-year agreements when cost-effective and advantageous under the existing economic environment.

2. Take steps to ensure that future markets are available to which CEA risk can be transferred.

3. To the extent feasible, transact directly with entities that are the primary bearers of the ultimate risk (the "primary risk bearers").

4. Distinguish clearly between primary and secondary market capacity.

The CEA distinguishes primary market capacity from secondary marked capacity as follows:

- Primary market capacity offers direct contact between the CEA and the ultimate risk bearer and is therefore generally more stable than secondary capacity. Direct contact will generally permit a more thorough and effective exchange of knowledge between the CEA and the ultimate risk bearer—this direct collaboration can mature into a long-term relationship that enhances uninterrupted access to risk capital, which is crucial to the CEA's mission.

- Secondary market capacity means the entity executing the transaction with the CEA is not the ultimate risk bearer—instead, it may be a fronting entity that is a conduit of risk and premium to a retrocessionnaire or bondholder (in secondary markets). In such a case, while the contract counterparty is directly liable to the CEA under the terms of the reinsurance contract for the payment of claims, it is the secondary market that has accepted the ultimate risk of CEA loss.

Because of certain general advantages of primary market capacity, the CEA prohibits any *specific retrocession* of CEA risk without the advance written permission of the CEA. In those cases where the CEA has approved the retrocession of CEA risk, such risk should be applied against the maximum permitted line of the direct reinsurer and each retrocessionaire, as described in the next section of these Guidelines.

The CEA has relied on reinsurance intermediaries and independent financial consultants to help CEA evaluate the economic environment at the time of securing reinsurer participations, and to consider reinsurers that might occasionally (with CEA permission) use retrocessional reinsurance to manage risk.

5. The CEA cannot depend entirely on a few entities or markets to provide all its claim-paying capacity. An inordinately large allocation to one reinsurer could disadvantage the CEA. The CEA at its sole discretion may moderate this guideline in response to compelling and appropriate circumstances.

FINANCIAL STRENGTH OF REINSURER

The reinsurer's financial strength and its ability to fulfill its promise of claim-paying obligations are the primary considerations in determining whether a reinsurer qualifies to do business with the CEA. Depending on the severity of the CEA's losses, a reinsurer's failure to make timely payment to the CEA could be the equivalent of a failed promise to a CEA policyholder, because reinsurance recoveries are a primary source of the CEA's ability to pay claims. Accordingly, in obtaining claim-paying capacity from traditional reinsurance sources, the CEA should apply the following criteria at inception of the reinsurance contact, but also should maintain the flexibility to take appropriate action, including by means of the credit enhancements described below, if these criteria are no longer satisfied.

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

General Criteria

To qualify as a CEA reinsurer, a reinsurer must meet both of the following standards (all amounts in US dollars):

- Policyholders' surplus (PHS) of at least $150 million; and
- An A.M. Best financial strength rating of at least A-, or a Standard & Poor's (S&P) financial strength rating of at least A-, or a Moody's financial strength rating of at least A3.

The CEA should use the following criteria to allocate lines of reinsurance to reinsurers:

1. The rating agencies A.M. Best, S&P, and Moody's assign ratings to reinsurers that signify a reinsurer's financial strength. Each rating agency analyzes key financial ratios to measure leverage, liquidity, asset quality, and other balance-sheet and income-statement indicators of financial strength. They also assess management qualifications and take into account a reinsurer's exposure to natural disasters. It is therefore appropriate that the rating A.M. Best, S&P, or Moody's assigns a reinsurer should influence the size of that reinsurer's participation in CEA reinsurance contracts.

2. "Economic mass" — a company's policyholders' surplus — is an indicator of financial staying power and should directly influence the CEA participation allocation. No reinsurer should be allocated combined participating shares in CEA reinsurance contracts for a given contract period that would generate total liabilities (not including exposures to reinstated limits, if any) greater than 10% of that reinsurer's PHS.

3. To properly scale a reinsurer's CEA participation level to its rating and PHS, the following guidelines will be used when allocating lines of reinsurance contracts:

Table 1

(For reinsurers with PHS between $ 150 & $300 million)

Maximum Line (% of PHS)	**A.M. Best Rating***	**Standard & Poor's Rating***	**Moody's Rating***
0% - 1 .5%	A-	A-	A3
1.51% - 3.0%	A	A+	A1 to A2
3.01% - 6.0%	A+ or A++	AA- to AAA	Aa3 - Aaa

Table 2

(For reinsurers with PHS greater than $300 million)

Maximum Line (% of PHS)	**A.M. Best Rating***	**Standard & Poor's Rating***	**Moody's Rating***
0% — 3.0%	A-	A-	A3
3.01% — 5.5%	A	A to A+	A1 to A2
5.6% — 8.0%	A+	AA- to AA	Aa3 - Aa2
8.01%— 10.0%	A++	AA+ to AAA	Aa1 to Aaa

*For a company that is rated by two or more of the rating agencies mentioned above, the lowest of the ratings will apply in apply these guidelines.

The maximum line allocation is calculated as follows: The sum of all the reinsurer's authorized lines on all CEA reinsurance contracts that are or will be effective for the same period is compared to the maximum permitted line from Table 1 or Table 2. The reinsurer's authorized lines that will be compared to the maximum permitted line will be the aggregate of all lines of CEA risk assumed by reinsurer for that period, regardless of whether any such lines are assumed as primary market capacity, as a fronting entity, as a retrocessionaire, or in any combination of these.

4. The CEA buys reinsurance from the global reinsurance community. Many of the CEA's reinsurers are not domiciled in the United States, and many of those reinsurers provide financial reports

based on currencies other than U.S. dollars. Exchange rates fluctuate daily, and an exchange rate moving downward in relation to the U.S. dollar means diminished financial security for the CEA. To manage this risk, the CEA will employ the following procedure:

a. In assigning reinsurance-contract participations, the CEA will calculate a non-U.S.-domiciled reinsurer's PHS based on its domicile's exchange rate against the U.S. dollar not more than 30 days before the date of binding that reinsurer's participation in a reinsurance contract. This is called the "Base Exchange Rate."

b. If during the term of a reinsurance contract a reinsurer domicile's exchange rate falls below the Base Exchange Rate, the CEA will reevaluate compliance with the Guidelines for any reinsurer based in that domicile.

Credit Enhancement

The CEA, at its sole discretion, may accept certain credit-enhancement tools in support of reinsurance-line allocations for reinsurers, including reinsurers participating in Alternative Transactions, that do not meet the above financial strength criteria and would therefore ordinarily fall outside the Guidelines. This guideline, which permits the CEA certain flexibility in waiving or modifying allocation guidelines, is not intended to reserve or grant, and does not reserve or grant, any rights whatsoever to any person or entity other than the CEA and its Governing Board. Credit enhancement may include, without limitation, any of the following:

1. ***Collateralization.*** The CEA may allow Reinsurers to provide the CEA with collateral, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All such Collateral must be posted in a collateral account established in a U.S.- based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved by the CEA. The collateral account control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup (as that subgroup is described in the Alternative Risk Transfer section of these Guidelines), acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

2. ***Letters of Credit.*** The CEA may allow reinsurers to provide one or more letters of credit, in a form acceptable to the CEA, to support an allocation of reinsurance limit outside the Guidelines. All letters of credit must meet appropriate format and security standards, which may include, without limitation, the following criteria:

a. The letter of credit is issued by a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best.

b. The letter of credit is a clean, irrevocable, unconditional direct pay letter of credit payable to the CEA and in form and substance satisfactory to the CEA.

c. The letter of credit is issued for a term expiring no earlier than the termination date of the reinsurance contract for which the reinsurer is securing its line by the letter of credit, and includes an evergreen provision that automatically extends the term for at least one additional year beyond the expiration date unless the issuer of the letter of credit gives written notice of non-renewal to the CEA by certified mail not less than 60 days prior to the expiration date, and in the event of such a non-renewal or other expiration of the letter of credit, the subscribing reinsurer agrees to obtain replacement letters of credit to the extent necessary to comply with its collateralization requirements.

3. ***Parental Guarantees.*** A reinsurer that has exceptionally strong capitalization, or a company that is affiliated with a strongly capitalized parent that is willing to provide, and does provide, a written parental guarantee, may be acceptable even if it fails to meet the criteria in the above allocation guidelines. In deciding whether to accept a parental guarantee as a credit enhancement, the CEA will consider the following:

a. A subsidiary of a quality parent typically enjoys superior liquidity and access to capital.

b. A strong parent would likely not abandon a failed subsidiary and would fulfill the subsidiary's obligations because of the damage that abandonment would inflict on the parent's reputation. Parent companies that are not insurers, however, should be carefully examined for appropriate risk appetite and other desirable, relevant attributes.

The CEA, in its discretion, may require a reinsurer to provide credit enhancements in support of the entire line allocated to the reinsurer, or only that portion of the reinsurer's allocated line that exceeds the amount of that would otherwise be permissible under these Guidelines.

Lloyd's Syndicates

The financial statements of syndicates at Lloyd's do not state a policyholders' surplus; therefore, unlike with non-Lloyd's reinsurers, policyholders' surplus cannot be used as an allocation criterion for Lloyd's. The CEA must instead use a "policyholders' surplus equivalent" in lieu of using policyholders' surplus. The CEA will use one or more of the following, as specified in this paragraph, as policyholders' surplus equivalents:

- The syndicate's premium receipts plus its reserves. This is commonly referred to as "Syndicate Level Assets."
- Any additional capital dedicated by a syndicate's member(s) for the syndicate's liabilities by a deposit of funds into any of three trust funds in which members' assets may be held—the Lloyd's deposit fund, the special reserve fund, or the personal reserve fund—each of which is available to meet cash calls made on the member with respect to syndicate needs. This is commonly referred to as "Members' Funds at Lloyd's."
- The syndicate's volume of business measured in gross written premiums net of acquisition costs underwritten by a syndicate's business plan accepted by Lloyd's (Lloyd's requires syndicates to

have a stated amount of capital to support the amount of gross written premiums in the business plan). This is commonly referred to as the syndicate's "stamp capacity."

For purposes of determining a syndicate's maximum line allocation, the CEA will calculate the policyholders' surplus equivalent as follows:

- If the syndicate has disclosed to the CEA both its Syndicate Level Assets and its dedicated Members' Funds at Lloyd's, the combination of Syndicate Level Assets and dedicated Members' Funds at Lloyd's will be used as the policyholders' surplus equivalent.

- If the syndicate has disclosed to the CEA its Syndicate Level Assets but not its dedicated Members' Funds at Lloyd's, the Syndicate Level Assets will be used as the policyholders' surplus equivalent.

- If the syndicate has not disclosed to the CEA its Syndicate Level Assets, the syndicate's stamp capacity will be used as the policyholders' surplus equivalent.

The exchange rate for Syndicate Level Assets, dedicated Members' Funds at Lloyd's, and stamp capacity will be the market exchange rate, Pounds Sterling to U.S. Dollar, in effect on the date CEA commences marketing the reinsurance program.

If a syndicate has a financial strength rating from either A.M. Best, S&P, or Moody's, Table 1 or Table 2, above, will be used to calculate the syndicate's maximum line allocation, based on the syndicate's appropriate policyholders' surplus equivalent, converted to reflect the market exchange rate, and its rating. If a syndicate does not have a financial strength rating from A.M. Best, S&P, or Moody's , that syndicate's appropriate policyholders' surplus equivalent, converted to reflect the market exchange rate, will be calculated using Table 3, below.

Table 3

Lloyd's of London: Non-Rated Syndicates Policyholders' Surplus Equivalent (Syndicate Level Assets, Members' Funds at Lloyd's, or Stamp Capacity) Conversion to Maximum Line Allocation

Policyholders' Surplus Equivalent (millions)	Maximum Line (% of Policyholders' Surplus Equivalent)
< $150	2%
> $150	3%

The CEA requires that all its reinsurance contracts grant the CEA the right (but not the obligation) to reduce or terminate a reinsurer's participation share, before contract expiration, if the reinsurer's financial strength weakens, causing the reinsurer's existing participation allocation to exceed what the Guidelines would permit.

Expatriate Companies

The CEA will not contract for reinsurance capacity with a reinsurer that meets the criteria as an "expatriate company." As used in these Guidelines, an expatriate company is a U.S. corporation that relocates, whether physically on solely on paper, to an offshore tax-haven location. If the CEA is unable to secure the desired or necessary reinsurance capacity without contracting with an expatriate company, the CEA staff will present to the CEA Governing Board the reasons that the CEA should contract with the expatriate company and ask for the Governing Board's approval to execute the contract.

EFFICIENCY

Because a competitive market environment benefits the CEA when it negotiates terms for traditional reinsurance, the CEA should:

1. Work to place cost-effective alternatives to traditional reinsurance;

2. Provide reinsurers detailed underwriting information through its intermediaries.

Appropriate use of secondary capital market transactions can supplement traditional reinsurance capacity. Certain negative attributes of some secondary capital market products (instability, inflexibility, and lack of claim-paying track record) may be overcome by achieving the desirable attributes of lower cost, encouragement of competition among reinsurers, and diversification of sources of claim-paying capacity.

FLEXIBILITY

In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may waive or modify any allocation guideline if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

ALTERNATIVE RISK TRANSFER

The Guidelines in this section apply to all alternative risk transfer transactions in which the CEA is a party (referred to as "Alternative Transactions"), including reinsurance funded by the proceeds of a catastrophe bond issued by a special purpose reinsurer and other transactions funded by insurance-linked securities (referred to collectively as "ILS Transactions"), collateralized reinsurance with institutional investors, such as hedge funds and pension plans, and similar transactions.

The CEA, at its sole discretion, may enable the development of and utilize Alternative Transactions, that may bring greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity, in order to, among other things:

- Attract capacity at more efficient terms;
- Attract capacity that is comparable with the pricing of traditional reinsurance markets; or
- Enable the development of alternative markets or alternative financial products, which may bring, without limitation, greater efficiency and stability to the CEA's claim-paying structure or diversify the CEA's sources of claim-paying capacity.

ESTABLISHMENT OF ADVISORY SUBGROUP

The CEA will establish a Alternative Risk Transfer Advisory Subgroup (referred to as the "ART Subgroup"), which will have primary responsibility for overseeing and approving the structural and pricing terms of, and any publicity in connection with, each Alternative Transaction. The ART Subgroup will be composed of the CEO, the CFO and the General Counsel, together with any other CEA staff or officers deemed appropriate by the ART Subgroup to oversee CEA involvement in any Alternative Transactions. The ART Subgroup will operate through the unanimous consensus of the CEO, the CFO and the General Counsel. Formal meetings of the ART Subgroup and approval of matters before the ART Subgroup through formal voting procedures will not be required.

Before approving any Alternative Transaction, the ART Subgroup should consider whether the proposed Alternative Transaction:

- Is economically reasonable for the CEA in light of market conditions;
- Furthers the CEA's claim-paying capacity without subjecting it to unreasonable exposure to market, legal or regulatory risk; and
- Poses an undue risk of harm to the CEA's stature or reputation.

In connection with these considerations, the ART Subgroup may consult independent third party advisors such as the CEA's reinsurance intermediaries and independent financial advisor to analyze and discuss with the ART Subgroup the benefits, risks and opportunities of any proposed Alternative Transaction. CEA staff should appropriately document discussions and decisions related to these topics.

FLEXIBILITY

As the CEA participates in various Alternative Transactions and gains experience regarding the benefits and risks involved with Alternative Transaction structures, the ART Subgroup shall reevaluate these Guidelines to ensure that risks are mitigated and that potential benefits are not unduly limited by applications of the Guidelines and the procedures mandated by the Guidelines.

PRICING

The final pricing of any Alternative Transaction must be approved by the CFO in consultation with the CEO and any other appropriate professionals at the CEA appointed by the ART Subgroup to advise on pricing matters. The CFO should solicit the views of reasonably selected market professionals to assist the CEA in determining whether an Alternative Transaction is competitive from a pricing standpoint, taking into account the relative benefits of the transaction with other forms of risk transfer.

NEGOTIATION OF TERMS

It is recommended that the CEA's internal and external counsel (if any) either draft or review the terms of any reinsurance agreement entered into by the CEA in connection with an Alternative Transaction to ensure that the terms are consistent with appropriate market standards and create effective risk transfer from the CEA's perspective. Annex A of these Guidelines describes certain preferred terms for ILS Transactions.

OPERATING GUIDELINES

In connection with its procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction), it is recommended that the CEA and its staff comply with the preferred guidelines attached as Annex B and any other operating guidelines provided by the CEA's internal and external counsel in connection with ILS Transactions. The operating guidelines attached as Annex B may be amended at any time with the prior approval of the ART Subgroup, and should be reviewed periodically for changes to applicable law.

ANNEX A

PREFERRED TERMS FOR ILS TRANSACTIONS

The following is a non-exhaustive description of preferred terms for any ILS Transaction through which the CEA obtains reinsurance coverage. In describing these preferred terms, it is expressly understood that the ILS market continually evolves and different reinsurance structures may be desirable to the CEA depending on pricing, the CEA's needs and other factors. In the sole judgment and discretion of the CEA, acting with the advice of staff and experts, the CEA may deviate from these preferred terms if to do so would bring substantial benefit to the CEA without compromising the basic goals of financial strength, stability, and efficiency.

1. The reinsurance agreement will indemnify the CEA on an excess of loss aggregate annual basis for a period of not less than three years.

2. The aggregate limit of the reinsurance agreement will be fully collateralized to the aggregate limit of the agreement. The proceeds from the sale of the bonds must be deposited into a collateral account established in a U.S.-based bank with a long-term credit rating of at least "A-" from Standard & Poor's or "A-" from A.M. Best, using a form of collateral account control agreement approved by the CEA. The collateral control agreement must require that collateral in the account be solely held in the form of specified types of permitted assets, consisting of one or more of the following:

a. Cash, in United States Dollars;

b. Interests in money market mutual funds rated in the highest rating category by Moody's or Standard & Poor's and registered under the Investment Company Act of 1940 that invest solely in direct obligations of the U.S. Treasury and have a per share value of $1.00 or more;

c. Direct obligations of the U.S. Treasury, excluding Treasury "separate trading of registered interest and principal securities" zero coupon bonds (Treasury STRIPS) or Treasury Inflation Protected Securities (TIPS); or

d. Other assets that the CEA may, at its sole option, permit upon a determination, in the sole judgment and discretion of the ART Subgroup, acting with the advice of staff and experts, as needed, that the assets provide levels of safety, security, and liquidity comparable to the categories of assets specified in subparagraphs (a) through (c) immediately above.

3. The CEA will be obligated under the reinsurance agreement to make periodic reinsurance premium payments to the reinsurer on a quarterly basis.

4. Only if required by the rating agency retained by the reinsurer to rate the security, the CEA will deposit into an escrow account for the benefit of the reinsurer one quarter of annual reinsurance premium payments.

5. The reinsurance agreement will have separate retentions for each annual risk period. The dollar amount of the retention will be reset and recalculated for the second and third annual periods pursuant to procedures agreed to by and between the CEA and the reinsurer.

6. The reinsurance contract will provide for one or more optional extension periods allowing the CEA, in its sole discretion and at its election, to extend the term of the reinsurance contract beyond its scheduled termination date for the limited purpose of submitting loss payment requests and receiving loss payments. The aggregate time of all such optional extension periods will be at least 18 months.

7. The CEA will pay negotiated fees and expenses upon successful completion of a risk-transfer transaction by the reinsurer. If the risk-transaction is not successfully completed by the

reinsurer, the CEA will not be obligated to pay or reimburse any person or entity (including, without limitation, the reinsurer, the underwriter, or any service providers engaged by the reinsurer or underwriter) for any expenses and fees associated with the transaction.

ANNEX B

PREFERRED ILS OPERATING GUIDELINES

The following preferred operating guidelines relate specifically to the procurement of reinsurance funded by the proceeds of a catastrophe bond or other insurance-linked securities issued by a special purpose reinsurer (referred to as an ILS Transaction).

Publicity

Any interviews or public presentations (including conferences and seminars) by an officer, director or employee of the CEA in connection with its participation as a cedent in an ILS Transaction should be approved by the ART Subgroup. In making any public statements, the CEA should be careful not to condition the market for specific securities offerings that are underway or are contemplated in the future. For example, the CEA should not mention the specific size of a contemplated offering or the at-risk layer, the anticipated launch date, the underwriters, the anticipated pricing parameters or the expected loss of the transaction. In addition, to the extent practicable, the CEA should seek to require any reporter with whom an interview has been granted to submit a draft of the article for review as a condition of access to CEA officers and employees.

Offering Materials

All CEA information provided by the CEA to any party involved in an ILS Transaction and that may reasonably foreseeably be used in connection with the reinsurer's preparation of offering materials should be subject to the review and approval of appropriate personnel appointed by the ART Subgroup in order to determine, at the time the information was provided, whether the information (i) is accurate in all material respects and (ii) does not omit to state a material fact necessary in order to make the statements contained therein, in the light of the circumstances under which they were made, not misleading.

If the CEA determines to participate in a roadshow or other investor presentation, as approved by the ART Subgroup, it is recommended that the CEA's participation be scripted in advance (including in high-level PowerPoint slides), with the script subject to review by the appropriate legal staff at the CEA. Material non-public information about the CEA should be held confidential and not disclosed unless and until the CEA determines to publicly disclose that information.

Prior to the closing of an ILS Transaction, it is recommended that the CEA confirm that transaction counsel for the reinsurer has delivered a customary 10b-5 negative assurance letter to the underwriters.

Subject Business

Internal procedures should be put in place to ensure that the underlying subject business data and policies provided to the reinsurer, which in turn may be provided to a third party risk modeling firm, is accurate and constitutes the complete set of business that the CEA intends to be covered by the reinsurance agreement.

Statements Regarding Offering Materials

Statements implying that the CEA has or had ultimate authority over any ILS Transaction or undermining the reinsurer's independence or ultimate authority should be avoided. For instance, the CEA should be careful to describe the CEA's role in an insurance-linked securities transaction from the perspective of an insurance company purchasing reinsurance and not as the "sponsor" of the transaction or the "issuer" of the insurance-linked securities. In other words, the CEA purchases reinsurance that is transformed and funded through a capital markets offering by an independent special purpose insurer, but it does not have control or authority over the reinsurer or the offering.

Indemnification

The CEA may agree to indemnify the reinsurer for claims relating to inaccuracies in CEA policy data used in the ILS Transaction. However, the CEA will not agree to provide any other indemnification for the transfer of the risk from the reinsurer into the capital markets, except through the procurement of an insurance policy where the risk of indemnification is not borne by the CEA.

Underwriters

While ultimate selection may be within the discretion of the reinsurer, the underwriters assisting the reinsurer in the effort of transferring the risk into the capital markets should be acceptable to the CEA from a reputation and experience perspective, including that:

- The lead underwriter has been in business for at least five years and has a satisfactory reputation in connection with insurance-linked securities offerings and the broader capital markets;
- The underwriters are appropriately licensed as broker-dealers to perform the functions required of them under the purchase agreement with the reinsurer; and
- The underwriters have appropriate experience in transferring insurance risk to the capital markets.

Periodic Training

The ART Subgroup should ensure that all CEA staff involved in ILS Transactions periodically receive appropriate training regarding the legal and regulatory framework applicable to ILS Transactions.

Governing Board Memorandum

December 17, 2014

Agenda Item 7:	Annual report on the state of the economy – Raymond James & Associates, Inc.
Recommended Action:	No action required – information only

Kapil Bhatia, Managing Director of Public Finance for Raymond James & Associates, Inc.—the CEA's independent financial advisor—will present to the Governing Board the annual report on the state of the economy.

Economic, Financial, Investment, and Risk Transfer Market Overview

Prepared for:

CEA CALIFORNIA EARTHQUAKE AUTHORITY™

THE STRENGTH TO REBUILD®

December 17, 2014

RAYMOND JAMES

Kapil Bhatia
Managing Director, Public Finance
Raymond James & Associates, Inc.
Ph: 727-567-1791
Email: Kapil.Bhatia@RaymondJames.com

Section 1	Economic Overview
Section 2	Financial Market Overview
Section 3	Risk Transfer Market Overview
Section 4	CEA Investment Portfolio

Section 1:

Economic Overview

EXECUTIVE SUMMARY

- Domestic economic sluggishness, regulatory reform, turmoil in the Ukraine, European and Asian financial crises, and Federal Reserve actions have combined to create a volatile financial market environment, which have dampened global growth

- The recession has been technically over since 2009, but economic fundamentals remain weak – longest downturn since World War II
- The Federal Reserve has taken action through multiple Quantitative Easings to stimulate economic growth by maintaining short-term interest rates at historic lows and is expected to continue to maintain them until middle to late 2015
- The equity markets are having a record year with the DJIA and S&P 500 increasing year-to-date by 7% and 11%, respectively, and 169% and 201%, respectively, versus the lows of March 2009
- U.S. corporate bond issuance has totaled $1.4 trillion through November 2014, which is 3.1% higher than the issuance over the same period in 2013. 2014 will be the fifth straight year of $1 trillion+ issuance
- The U.S. economy grew at a much faster pace than initially thought in the third quarter, pointing to strengthening fundamentals that should help it weather slowing global demand – the estimate of GDP growth in the third quarter is 3.9%, which is up from the 3.5% rate reported last month, reflecting upward revisions to business and consumer spending, as well as to inventories
    - The rise in output followed a 4.6% advance in the prior three months to mark the two strongest back-to-back quarters since the second half of 2003
    - The growth in the U.S. economy underscored the resilience of the U.S. against a backdrop of a Japanese recession, an anemic Euro Zone and a slowing China

- **Some of the world's largest economies, such as China, Japan, and many countries in the Euro Zone, are struggling with shrinking growth and low inflation or deflation**

- **Concern that economic recoveries from the U.S. to Europe and Japan are failing to spur inflation has been cited by central bankers worldwide as justification for continued monetary stimulus efforts**

GLOBAL ECONOMY UPDATE

- Japan's economy shrank 1.6% at an annual rate in the July-September period. The Japanese economy's disappointing performance followed a 7.3% contraction in the previous quarter
  - Economists attribute the downturn to an April hike in the country's sales tax, to 8% from 5%, that helped narrow a massive budget deficit but chilled consumer spending
  - Japan emerged from a 20-year period of stagnation in 2013 following Prime Minister Abe's decision to pump money into the financial system and lower interest rates through bond purchases similar to the U.S. Federal Reserve's quantitative easing program
- Euro Zone gross domestic product expanded just 0.2% last quarter and inflation is running at 0.4%, well below the European Central Bank's ("ECB") goal of just under 2%. As a result, Mario Draghi strengthened his stimulus pledge for the euro area by saying the ECB can't hold back in its fight to revive the economy
  - Overall, the $12 trillion Euro Zone economy – second only to the U.S. in size – is stuck with almost no growth or inflation to mend its imbalances, reduce high public and private debts, or significantly cut its chronic unemployment
  - The ECB is trying to boost the size of its balance sheet to early-2012 levels, signaling an increase of as much as €1 trillion ($1.24 trillion), to help revive the euro-area economy – to keep the region from slipping into deflation, the ECB has been pumping money into the banking system by buying covered bonds and offering cheap long-term loans to banks
  - Draghi has declined to rule out large-scale government-bond buying and reiterated that ECB staff are studying further measures to boost the economy if needed
- China cut benchmark interest rates for the first time since July 2012, stepping up efforts to support the world's second-largest economy – China's annual growth slowed to 7.3% in the third quarter, leaving 2014 on track to be the slowest in 24 years

- **The improving economic picture in the U.S. is in contrast with weakness in Europe and Asia**
- **Declining energy and commodity prices against the backdrop of a slowing global economy, and a strengthening dollar are keeping inflation below the Fed's target of 2%**
- **In October, the Federal Reserve ended its Quantitative Easing program, setting the stage for the Fed to begin tightening monetary conditions, though the market doesn't expect the Fed to raise rates until at least mid-2015**

U.S. ECONOMY UPDATE

- Underlying inflation pressures rose in October, even as falling gasoline prices kept overall U.S. consumer prices in check, bolstering expectations of a mid-2015 interest rate hike from the Federal Reserve
    - Prices in the U.S. excluding fuel and food increased more than forecast in October as a drop in energy costs failed to filter through to other goods and services – the core measure of the consumer-price index climbed 0.2%, the most in five months, after rising 0.1% in September
- The National Association of Realtors said existing home sales rose 1.5% to an annual rate of 5.26 million units, the highest rate since September 2013, a sign that the housing market continued to regain strength
- The U.S. economy added 321,000 jobs in November (the largest one month gain in nearly three years), and as of November the unemployment rate is 5.8% - the lowest rate since July 2008
    - Employers have now added at least 200,000 jobs for ten straight months, the longest such stretch since 1995
    - U.S. Private Sector has added 10.9 million jobs since 2010
- Employers are laying off fewer workers and have stepped up hiring this year – the weekly applications, which are a proxy for layoffs, have fallen 16% in the past 12 months
    - They are close to the lowest levels since 2000, a sign companies are more confident in the economy and willing to hold onto their staffs
- The number of people receiving unemployment benefits has also fallen steadily, and now stands at 2.33 million, the lowest since December 2000. Yet there are still 9 million people unemployed. Almost one-third have been out of work for six months or longer and are no longer eligible for unemployment benefits

- **Falling oil prices have created a growth opportunity for the U.S. to increase its own domestic production and rely less on foreign oil**

U.S. ECONOMY UPDATE (CONTINUED)

- The U.S. energy industry is undergoing a revolution that is expected to have a significant and enduring impact on the nation's economy and energy self-sufficiency. The progress made in advanced drilling techniques over the past few years has allowed for unprecedented access to oil and natural gas reserves in North America – given increased domestic production, U.S. dependence on foreign oil continues to decline

- There is a new industrial revolution in the U.S. highlighted by an energy and manufacturing boom – in October, the Institute for Supply Management's index of manufacturing activity rose to match its three-year high

  - The outlook for manufacturing is positive despite a strengthening dollar making products less competitive globally

  - The increase in manufacturing may reflect an economy that has entered a healthier stage, with increased hiring encouraging consumers to spend more, with better spending encouraging companies to step up production and stronger production necessitating yet more hiring

- There is a slack in the labor and capital markets, record low level of labor participation, and historically low interest rates. The labor prospects for the long-term unemployed decline further the longer they remain unemployed, which can cause their skills to atrophy

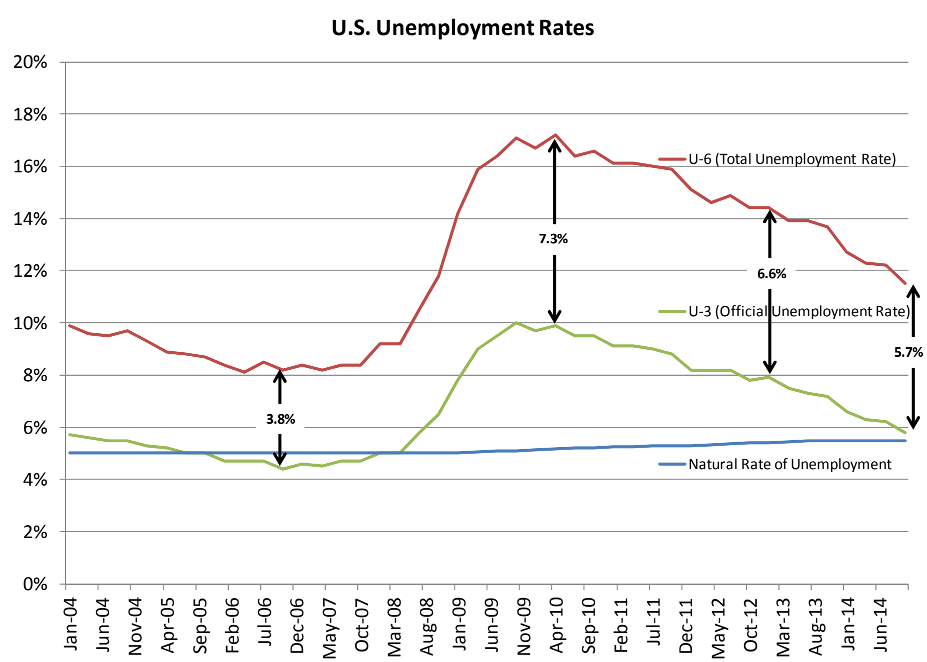
- Economic growth alone will not be enough to get everyone into work – supply-side structural reforms, such as job training, are also needed

- **While the official unemployment rate remains the primary measure of changes in labor underutilization, the alternative measures provide different views of the extent to which the economy is not fully utilizing its labor resources**

- **Analyzing the gap between the official unemployment rate (U-3) and the broadest measure of labor underutilization (U-6) provides extra insight into whether the economy is healing**

THE OFFICIAL UNEMPLOYMENT RATE IS DECREASING BUT STRUCTURAL UNEMPLOYMENT REMAINS HIGH

- There are few alternative measures of labor underutilization. There is the official unemployment rate (U-3) and three broader measures (U-4, U-5 and U-6), which incorporate individuals who are not captured in the official measure:
  - U-3 is the official unemployment rate (i.e., the unemployed, as a percent of the civilian labor force)
  - The broadest measure of labor underutilization, called U-6, includes the unemployed, the marginally employed, and persons who are actually employed but who work fewer hours than they would like (sometimes referred to as underemployed)
- The Natural Rate of Unemployment is the rate of unemployment when the labor market is in equilibrium – it is the difference between those who would like a job at the current wage rate and those who are willing and able to take a job. It therefore includes frictional unemployment and structural unemployment (i.e. a worker who is not able to get a job because he doesn't have the right skills)



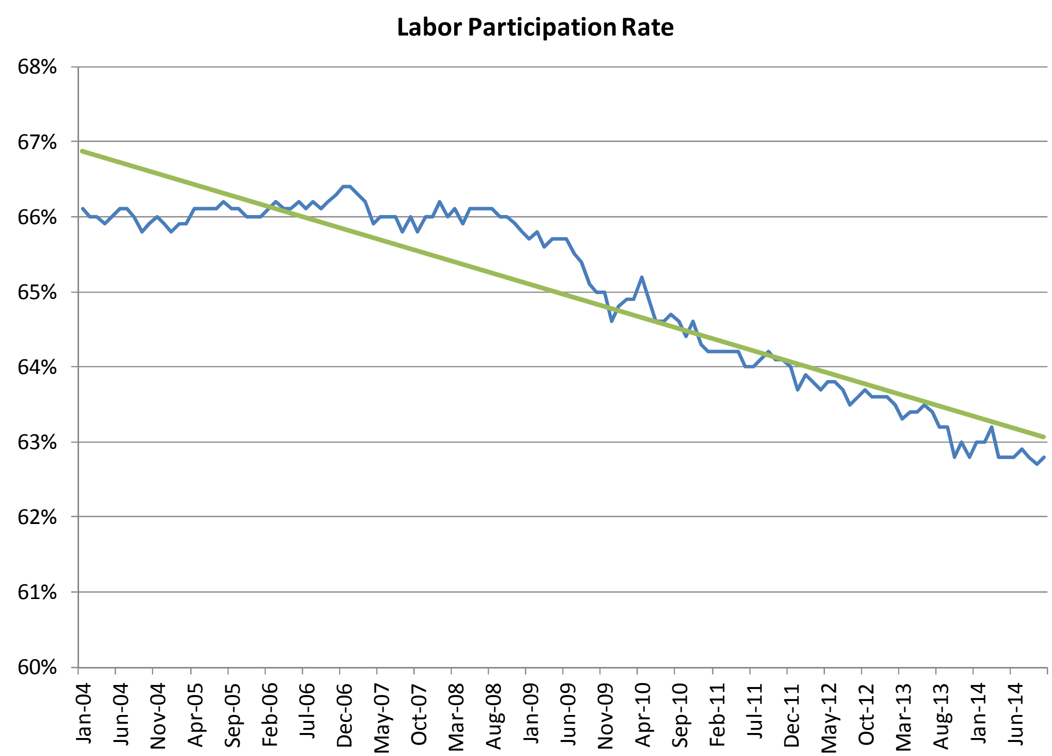
Source: Bureau of Labor Statistics

LABOR FORCE PARTICIPATION IS LAGGING

- There are still 9 million people unemployed and almost one-third have been out of work for six months or longer and are no longer eligible for unemployment benefits
- The decline in the labor participation rate explains structural unemployment

▪ The labor force participation rate stands at 62.8%, which is the lowest rate since 1978

▪ The labor force participation rate has fallen due to cyclical factors such as workers temporarily dropping out of the workforce because of discouragement over job prospects, but also due to structural forces such as the Baby Boomers reaching retirement age, younger workers staying in school longer, and a need to re-train labor skill sets to match the demands of the industrial and energy booms



RAYMOND JAMES

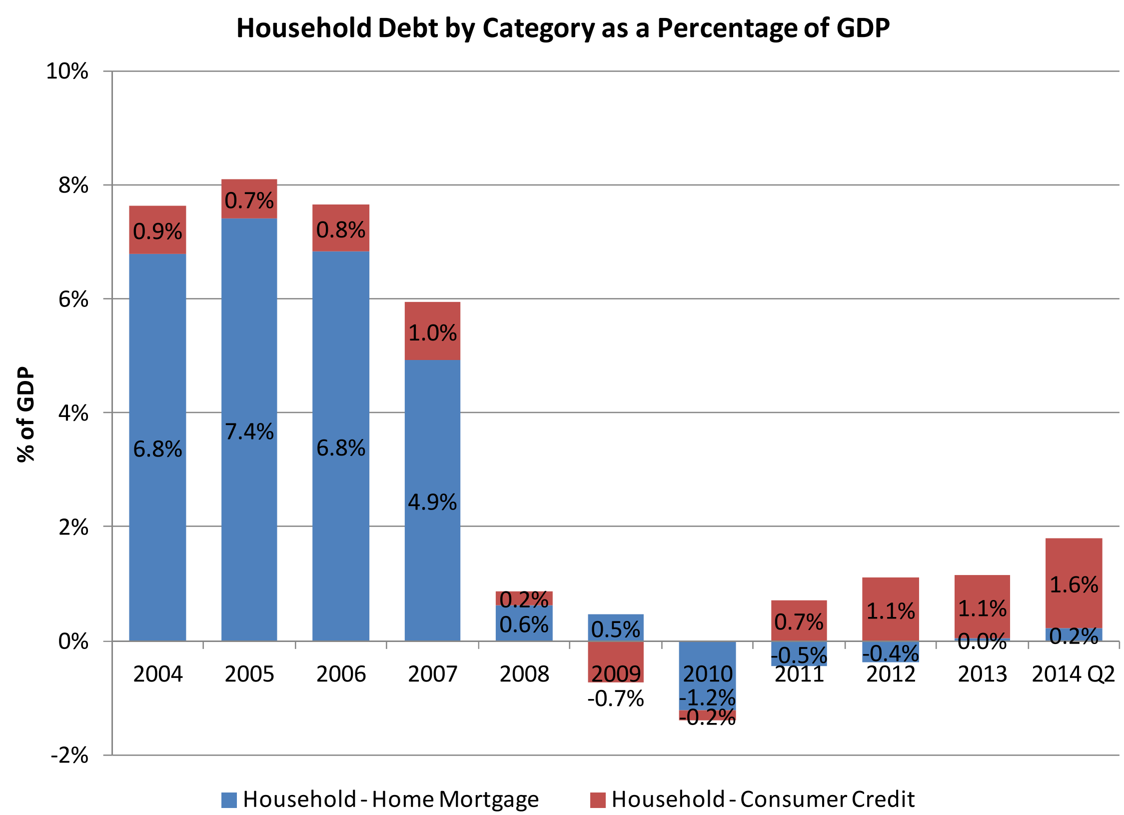
Source: Bureau of Labor Statistics

U.S. HOUSEHOLD DEBT

- Total household debt increased $175 billion in the second quarter to $471 billion. The increase was led by rising mortgage and auto loans
- Household debt is significantly lower than the highs seen in 2005 and 2006
- The personal savings rate has increased from 1.9% in July 2005 to the current rate of 5.0%

• Even though wages remain largely stagnant, Americans are slowly but steadily borrowing more money, bringing to an end a five-year effort to cut household debt that has slowed consumer spending and the economy

• Consumer spending is only marginally helping economic growth

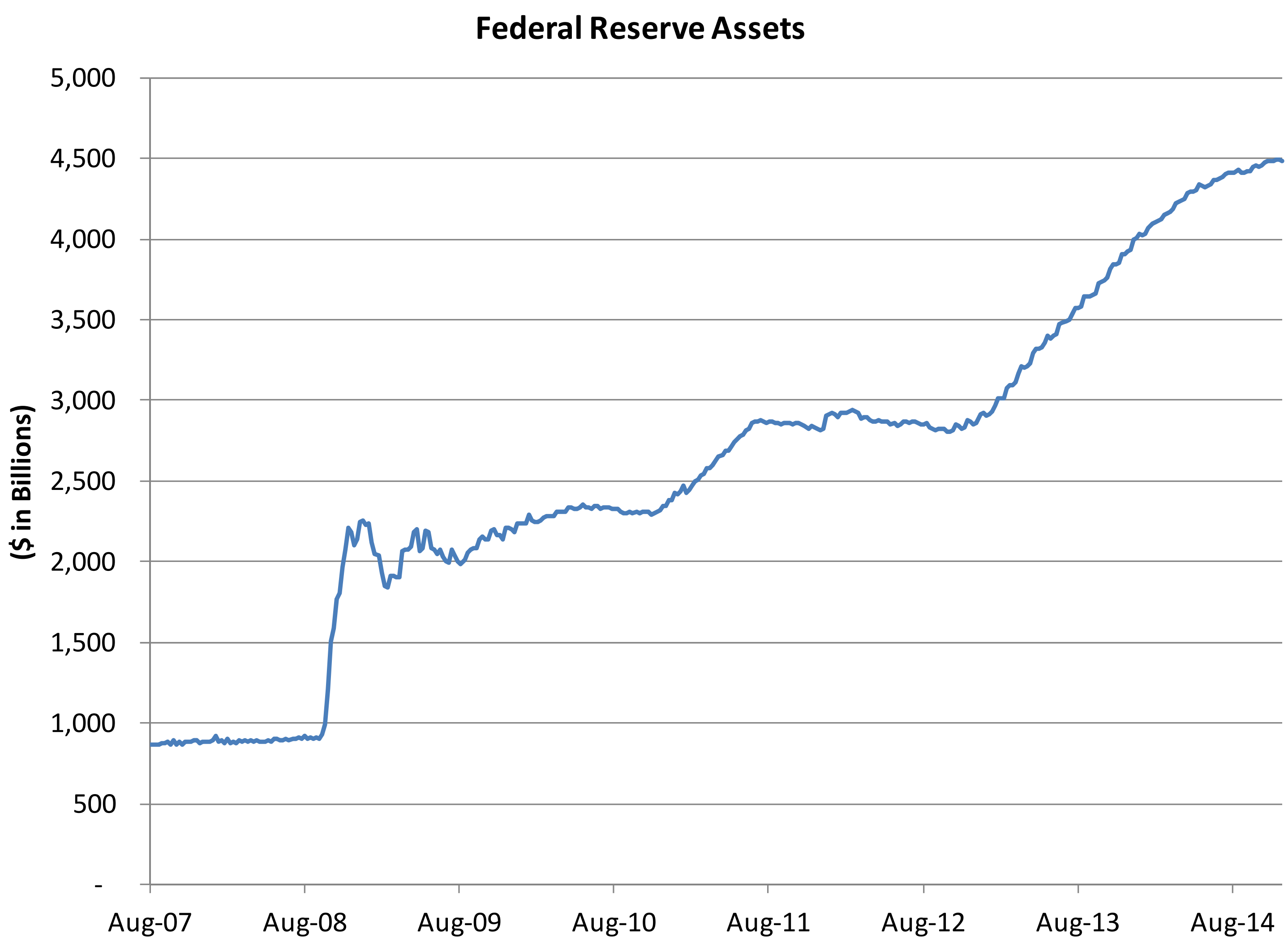


Source: Federal Reserve

RAYMOND JAMES

FEDERAL RESERVE ASSETS

- Since the beginning of the financial market turmoil in August 2007, the Federal Reserve's balance sheet has grown in size and has changed in composition
- Total assets of the Federal Reserve have increased almost 5x from $870 billion in August 2007, to over $4.4 trillion
- The total assets of the Federal Reserve are over twice the government expenditures for all 50 states



Source: Federal Reserve

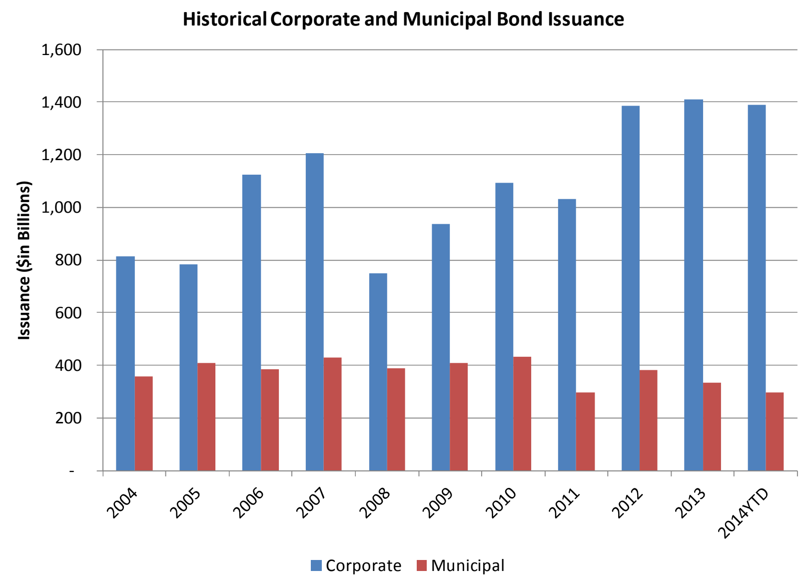
Section 2:

Financial Market Overview

BOND MARKETS

- Historically low interest rates have led to record setting corporate bond issuance amid strong investor demand
- 2014 has been a banner year for corporate bonds with worldwide issuance of $3.8 trillion on pace to exceed $4 trillion for the first time

- U.S. corporate bond issuance has totaled $1.4 trillion through November 2014, which is 3.1% higher than the issuance over the same period in 2013
  - Through November 2014, $1.1 trillion, or 75%, has been non-convertible investment grade debt and $305 billion, or 25%, has been non-convertible junk bond debt
- Alibaba Group Holding Ltd. sold $8 billion of bonds in its debut sale at yields that were lower than originally offered after the Chinese e-commerce company got at least $57 billion of orders from investors
  - Alibaba sold the largest portions in equal $2.25 billion offers of 5 and 10-year notes – the 2.5%, five-year notes sold at a yield of 0.95% above similar-maturity Treasuries and the 3.6%, 10-year securities sold at a relative yield of 1.28% basis points above similar-maturity Treasuries
- Apple Inc. issued $12 billion of bonds to buy back equity to increase its return on equity
  - The sale included $2.5 billion of 3.45%, 10-year notes that pay 0.77% more than similar-maturity Treasuries
- Municipal issuance is comparatively lower in 2014 than in 2013 – issuance through November 2014 totals $296 billion and is 4.0% lower than the $308 billion issued over the same period in 2013

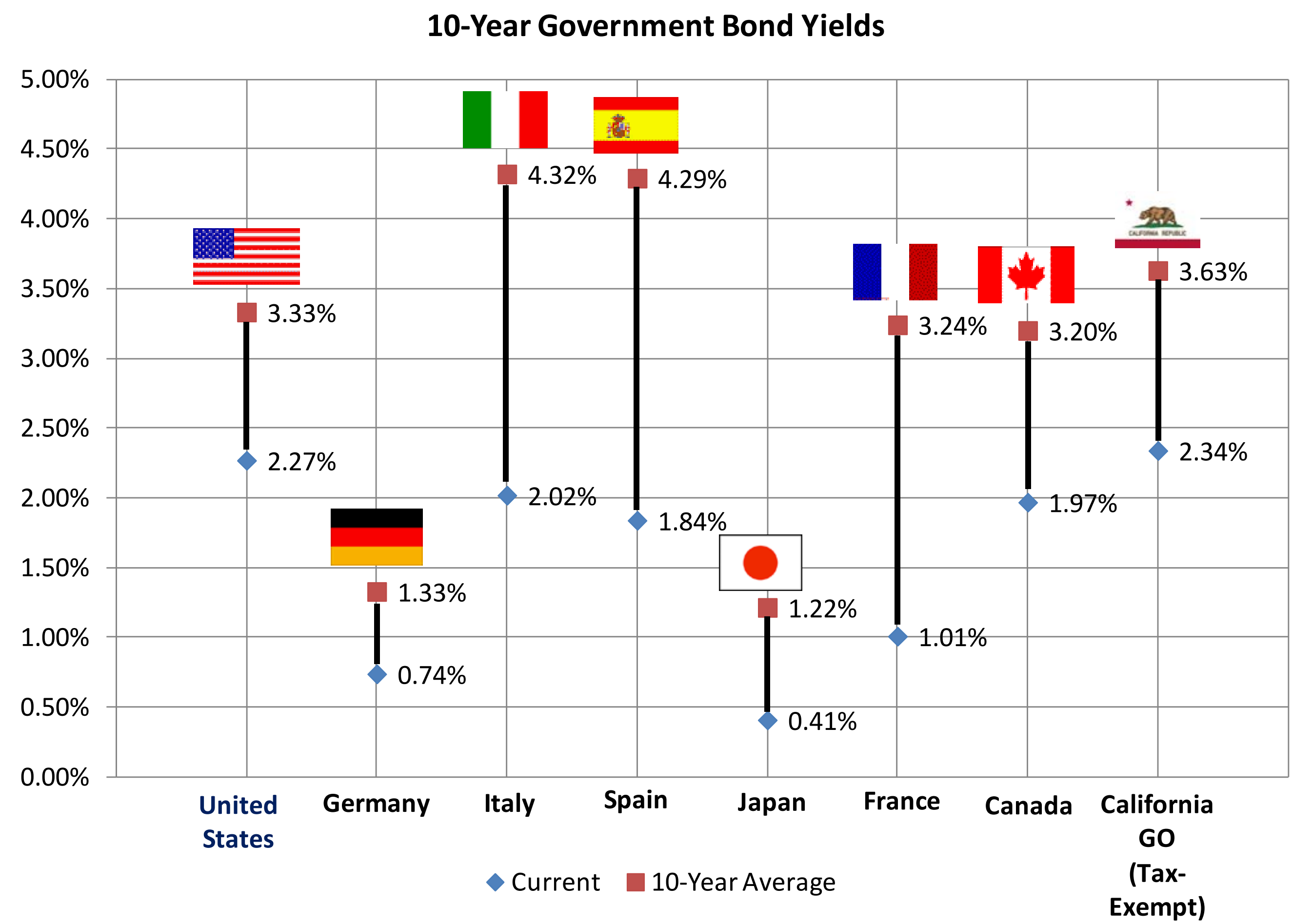


Source: SIFMA

GLOBAL INTEREST RATES

- As there is financial unrest in Europe and Asia, the U.S. is a relatively safer alternative and is attractive from a yield standpoint relative to other countries

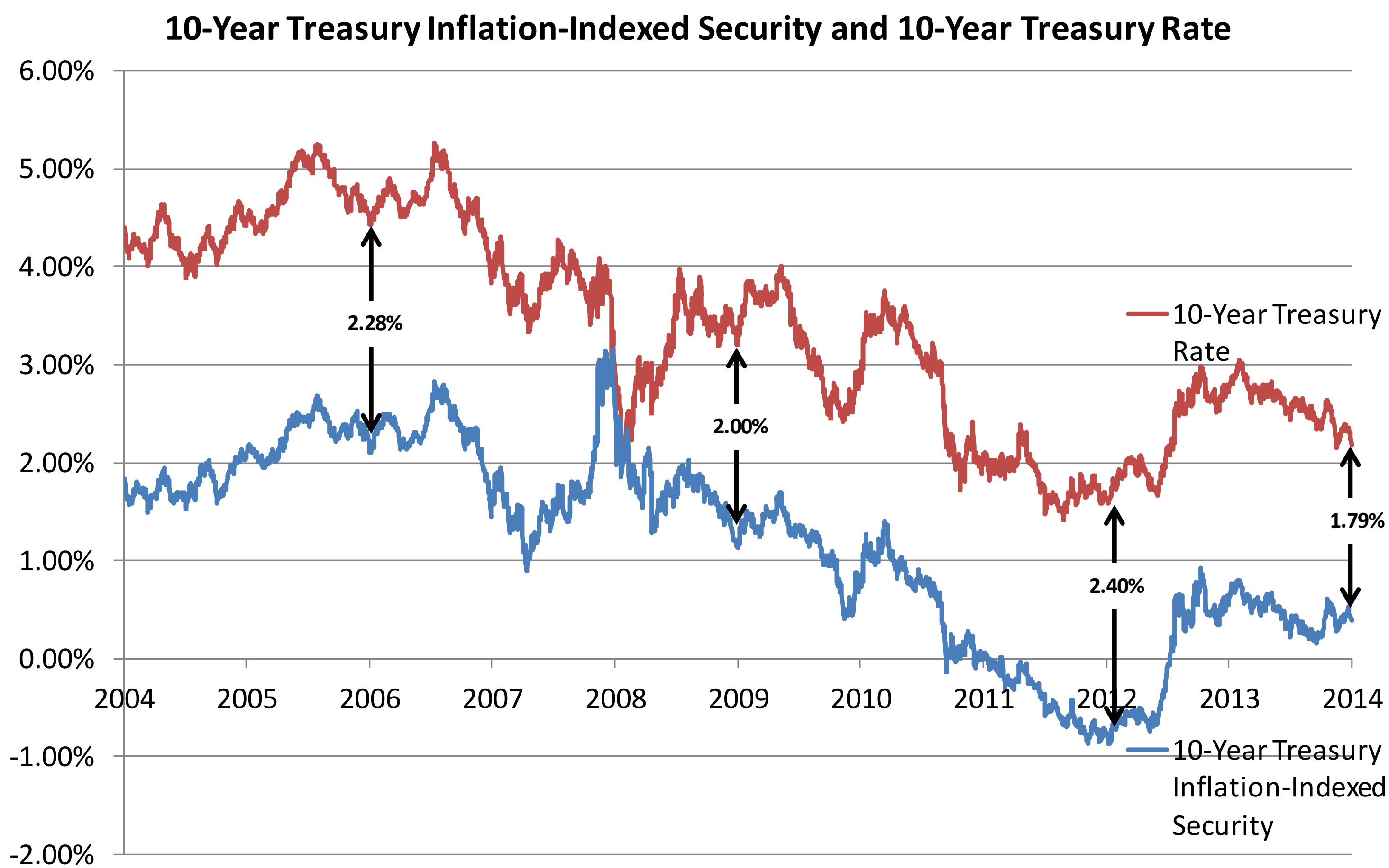
- **Global interest rates are near historic lows and are also well below historic averages**



Source: Bloomberg

U.S. INTEREST RATES

- U.S. annual inflation rate was recorded at 1.7% for the third consecutive month in October, as the fall in energy prices was enough to offset higher food and shelter cost
- The gauge of investors' long-term inflation expectations, as measured by the yield gap between 10-year TIPS and regular 10-year Treasury notes is currently 1.79%



Source: Federal Reserve

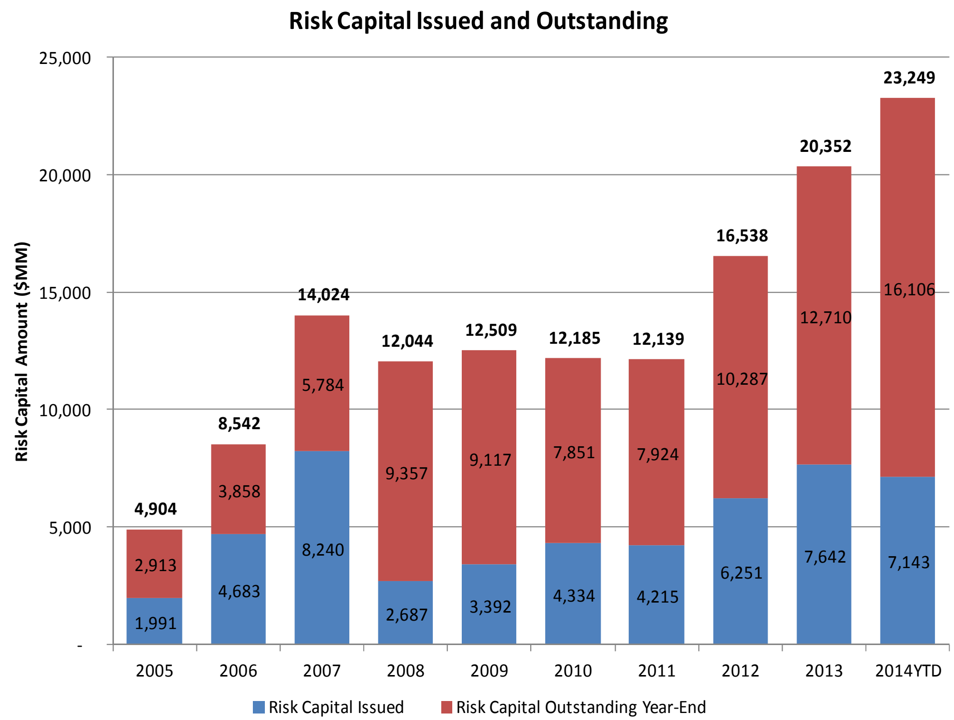
Section 3:

Risk Transfer Market
Overview

CATASTROPHE BOND MARKET OVERVIEW

- Catastrophe bond issuance for the first half of the year was the highest on record, exceeding the prior year period by almost 50% and reflecting continued strong demand both from sponsors and investors
- Despite a slow third quarter, catastrophe bond issuance for 2014 could surpass the annual market peak set in 2007
- Increased issuance in 2014 has enabled investors to add a variety of perils and regions to their catastrophe bond portfolios, including European windstorm, Japanese earthquake, Japanese typhoon and Texas hurricane
- Investors were also receptive to new currencies, as Aozora Re Ltd. launched the first catastrophe bond denominated in Japanese yen

- **Due to record setting issuance in 2014, total outstanding risk capital projected at year-end for 2014 currently stands at $23.2 billion**



RAYMOND JAMES

CATASTROPHE BOND PRICING

- **Catastrophe bond pricing, including Ursa Re, has remained at historic lows in 2014, as investor demand in this low interest rate environment has far exceeded the increased supply, allowing sponsors to expand coverage at competitive rates**

Catastrophe Bond Transactions Since May 2014

Issuer	Cedent	Perils Covered	Expected Loss	Initial Price Guidance ([Min-Max] Mid)	Final Pricing Spread	Pricing Spread vs. Mid Price Guidance	Pricing Spread Multiple (x)	Initial Size ($MM)	Final Size ($MM)	Final vs. Initial Size ($MM)	Date
Ursa Re Ltd. (Series 2014-1) - Class B	**California Earthquake Authority**	**California earthquake**	**2.62%**	**[4.50%-5.25%] 4.88%**	**5.00%**	**2.56%**	**1.9**	**$200**	**$200**	**0%**	**Nov-14**
Ursa Re Ltd. (Series 2014-1) - Class A	**California Earthquake Authority**	**California earthquake**	**1.20%**	**[3.00%-3.75%] 3.38%**	**3.50%**	**3.70%**	**2.9**	**$150**	**$200**	**33%**	**Nov-14**
Kilimanjaro Re Ltd. (Series 2014-2)	Everest Re	U.S and Canada earthquake	1.46%	[3.50%-4.00%] 3.75%	3.75%	0.00%	2.6	$350	$500	43%	Nov-14
Golden State Re II Ltd. (Series 2014-1)	California State Compensation Insurance Fund	Workers compensation claims resulting from California earthquakes	0.25%	[2.20%-2.70%] 2.45%	2.20%	-10.20%	8.8	$150	$250	67%	Sep-14
Alamo Re Ltd. (Series 2014-1)	Hannover Rück SE, on behalf of reinsured Texas Windstorm Insurance Association (TWIA)	Texas named storms	2.84%	[6.50%-7.00%] 6.75%	6.35%	-5.93%	2.2	$300	$400	33%	Jun-14
Residential Reinsurance 2014 Ltd. (Series 2014-1) - Class 13	USAA	U.S. tropical cyclones, earthquakes, severe thunderstorms, winter storms, wildfire, meteorite impact, volcanic eruption	0.54%	[2.75%-3.50%] 3.13%	3.50%	12.00%	6.5	$50	$50	0%	May-14
Residential Reinsurance 2014 Ltd. (Series 2014-1) - Class 10	USAA	U.S. tropical cyclones, earthquakes, severe thunderstorms, winter storms, wildfire, meteorite impact, volcanic eruption	9.86%	[14.00%-16.00%] 15.00%	15.00%	0.00%	1.5	$50	$80	60%	May-14
Sanders Re Ltd. (Series 2014-2)	Allstate subsidiaries Castle Key Insurance and Castle Key Indemnity	Florida named storms, earthquakes, severe thunderstorms	0.78%	[3.50%-4.00%] 3.75%	3.90%	4.00%	5.0	$150	$200	33%	May-14
Nakama Re Ltd. (Series 2014-1) - Class 2	Zenkyoren	Japan earthquake	0.75%	[2.25%-2.75%] 2.50%	2.50%	0.00%	3.3	$50	$150	200%	May-14
Nakama Re Ltd. (Series 2014-1) - Class 1	Zenkyoren	Japan earthquake	0.75%	[2.25%-2.50%] 2.38%	2.25%	-5.26%	3.0	$150	$150	0%	May-14
Aozora Re Ltd. (Series 2014-1)	Sompo Japan and Nipponkoa Insurance Company	Japan typhoon	0.52%	[2.25%-2.65%] 2.45%	2.00%	-18.37%	3.8	Not Provided	$100		May-14
Sanders Re Ltd. (Series 2014-1) - Class D	Allstate	U.S. named storms (excluding Florida), U.S. earthquake (CA, NY, WA)	1.13%	[3.50%-4.00%] 3.75%	3.90%	4.00%	3.5	$250	$305	22%	May-14
Sanders Re Ltd. (Series 2014-1) - Class C	Allstate	U.S. named storms (excluding Florida), U.S. earthquake (CA, NY, WA)	0.72%	[3.00%-3.50%] 3.25%	3.25%	0.00%	4.5	$100	$115	15%	May-14
Sanders Re Ltd. (Series 2014-1) - Class B	Allstate	U.S. named storms (excluding Florida), U.S. earthquake (CA, NY, WA)	0.72%	[2.75%-3.00%] 2.88%	3.00%	4.35%	4.2	$250	$330	32%	May-14
Armor Re Ltd. (Series 2014-1)	American Coastal Insurance Company	U.S. named storms (Florida only initially)	0.46%	[3.50%-4.00%] 3.75%	4.00%	6.67%	8.7	$150	$200	33%	May-14
Everglades Re Ltd. (Series 2014-1)	Citizens Property Insurance	Florida hurricanes	2.30%	[6.25%-7.75%] 7.00%	7.50%	7.14%	3.3	$400	$1,500	275%	May-14

RAYMOND JAMES

- **Looking forward to 2015, there are significant maturities in the first quarter at $3.5 billion, with an additional $1.5 billion in the second quarter**

- **There is continued new capital flowing into the ILS market, and investor demand should be strong in the first half of 2015 as there will be approximately $5.0 billion in redemptions, which in turn will continue to put downward pressure on pricing spreads**

SECONDARY MARKET ACTIVITY

- Secondary market activity in the second quarter of 2014 is significant as a large volume of new bonds issued in 2014 resulted in some investors reallocating their portfolios to free-up capital for new issuances

- Investors accessed a record amount of catastrophe bonds in the primary market, with many putting a large proportion of their funds to work

- Secondary market activity has slowed in the third and fourth quarters as issuance has slowed and there are only $350 million of maturities in the fourth quarter of 2014

Catastrophe Bond Secondary Market Pricing (as of October 31, 2014)

Issuer	Scheduled Maturity	Expected Loss (bps)	Rating	Coupon (bps)	Coupon Spread Multiple (x)	Secondary Market Indicative Offer Spread (bps)	Difference Between Indicative Offer Spread and Coupon (bps)	Indicative Offer Spread Multiple (x)
Embarcadero Re 2012-1	**13-Feb-15**	**221**	**BB-**	**725**	**3.28**	**459**	**-266**	**2.08**
Pelican Re 2012-1[1]	13-Apr-15	354	NR	1375	3.88	126	-1249	0.36
Embarcadero Re 2012-2	**07-Aug-15**	**84**	**BB+**	**500**	**5.95**	**200**	**-300**	**2.38**
Everglades 2013-1	28-Mar-16	318	B	945	2.97	412	-533	1.30
Tar Heel 2013-1	09-May-16	277	B+	850	3.07	358	-492	1.29
MetroCat Re 2013-1	05-Aug-16	171	BB-	450	2.63	177	-273	1.04
Everglades 2014-1	28-Mar-17	268	B	750	2.80	493	-257	1.84
Pelican Re 2013-1	15-May-17	205	NR	600	2.93	354	-246	1.73
Alamo Re 2014-1	07-Jun-17	309	Not Rated	635	2.06	411	-224	1.33
Kilimanjaro Re 2014-1 A[2]	30-Apr-18	183	BB-	475	2.60	346	-129	1.89
Kilimanjaro Re 2014-1 B[2]	30-Apr-18	165	BB-	450	2.73	381	-69	2.31

Source: BNP Paribas secondary market pricing as of October 31, 2014.

[1] *Maturing prior to the start of the 2015 hurricane season.*

[2] *There have not been any significant trades.*

- **Record levels of capital among traditional reinsurers as well as the growing capacity provided by alternative capital providers and ILS are softening reinsurance pricing and broadening policy terms and conditions**

- **As reinsurers are experiencing lower profitability, mergers and acquisitions could be a faster route to growth or an improved capital position**

- **Bermuda-based reinsurance firm RenaissanceRe recently agreed to acquire Platinum Underwriters, which could spur additional merger and acquisition activity among reinsurers**

VALUATION METRICS

- Public equity valuations remain well below historical averages, but have improved as the reinsurers are buying back shares

- Price / book ratio is almost at par and this may lead to more industry consolidation

Summary Valuation Metrics - Reinsurance Companies

Company Name	Market Capitalization ($MM)	Most-Recent Closing Price	Price Change YTD (%)	Price / Book (%)
Aspen Insurance Holdings Ltd.	$2,741	$44.05	6.63	97.00
AXIS Capital Holdings Ltd.	$5,090	$49.80	4.69	96.70
Blue Capital Reinsurance Hldgs	$148	$16.91	(7.95)	84.10
EMC Insurance Group Inc.	$410	$30.26	(1.18)	84.30
Enstar Group Ltd.	$2,818	$146.78	5.67	127.30
Everest Re Group Ltd.	$7,849	$173.46	11.29	106.30
Maiden Holdings Ltd.	$935	$12.82	17.29	104.00
Montpelier Re Holdings Ltd.	$1,511	$34.85	19.76	103.70
PartnerRe Ltd.	$5,716	$116.71	10.70	93.50
Platinum Underwriters Holdings	$1,834	$73.83	20.48	108.00
RenaissanceRe Holdings Ltd.	$3,760	$97.51	0.17	113.70
Third Point Re Ltd.	$1,530	$14.71	(20.62)	104.50
Validus Holdings Ltd.	$3,628	$41.52	3.05	99.90
XL Group plc	$9,133	$35.39	11.15	93.60
Average				**101.19**

Source: SNL Financial, as of December 3, 2014.

RATING AGENCY REINSURANCE INDUSTRY OUTLOOK

- **All four rating agencies have a negative outlook for the global reinsurance industry**

  - Moody's Investors Service has reinforced its negative outlook on the global reinsurance sector as fierce competition, over-capacity and low returns continue to put pressure on the industry, despite some positive developments

  - Standard & Poor's believes the increased competition in the global reinsurance market, created by excess capital which is driving down rates, could threaten the ratings of global reinsurers and create greater volatility in their earnings

  - Fitch notes that intense market competition and sluggish cedent demand has resulted in a softening market for reinsurers. In addition, the high level of alternative capital leads Fitch to expect that prices will continue to fall, and that terms and conditions will weaken into 2015 across a wider range of business lines

  - A.M. Best is concerned that shrinking margins and more favorable terms being offered to clients threaten to strain companies' financial strength

- **All four rating agencies have negative outlooks for the reinsurance industry due to challenges such as low interest rates, slower demand, and increased competition due to alternative capital**

Source: Moody's, Standard & Poor's, Fitch's, and A.M. Best's respective websites

Section 4:

CEA Investment Portfolio

CEA INVESTMENT POLICIES AND PORTFOLIO OVERVIEW

- **CEA's investment portfolio totals $5.5 billion with an effective duration of 1.4 years and is comprised of liquidity, primary, claims-paying and mitigation funds**
- **The maximum effective duration pursuant to the investment policy for the total portfolio is 1.75 years**

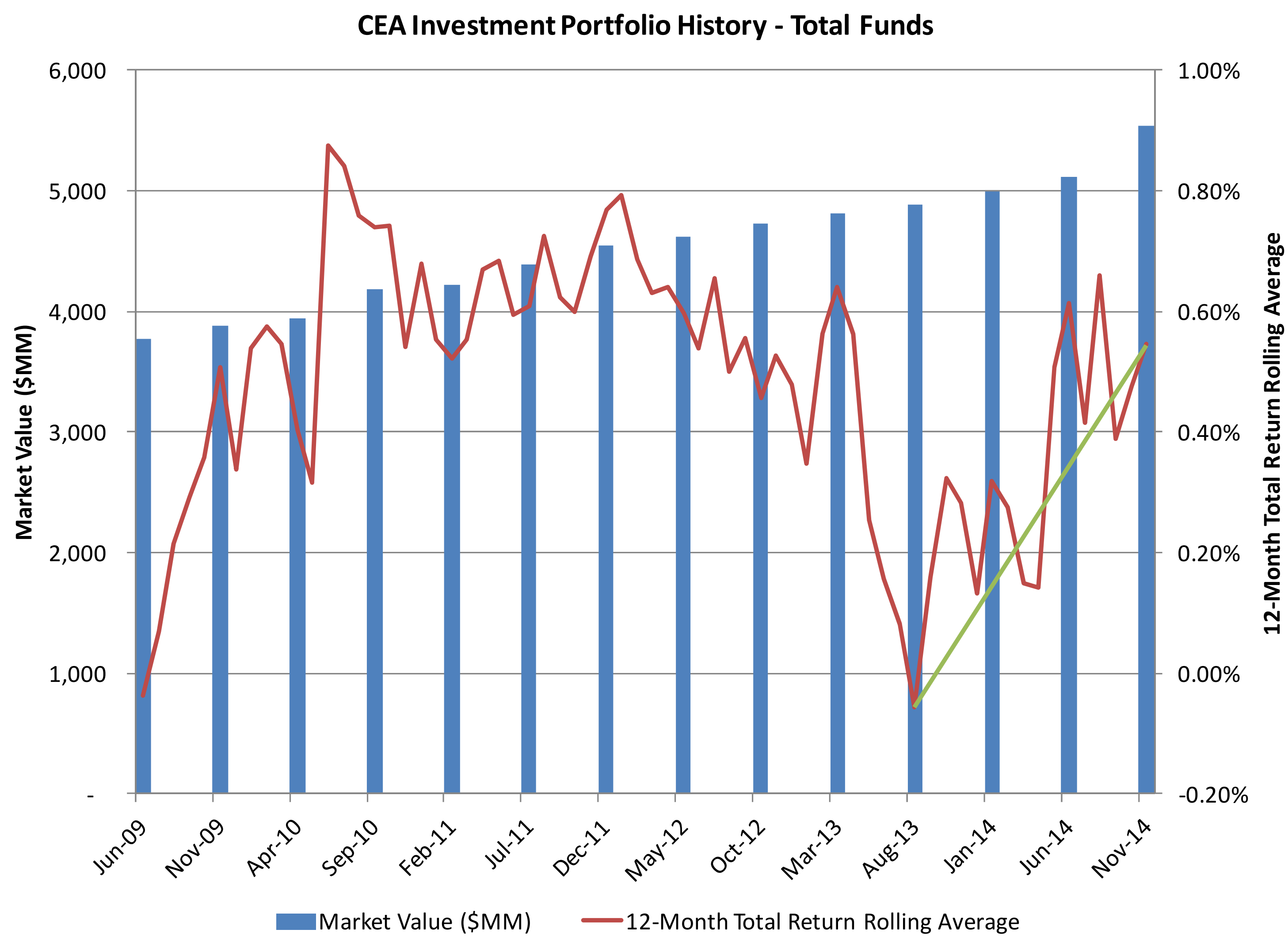
CEA Investment Policy Summary

Fund	Liquidity	Primary	Claims-Paying	Mitigation
Purpose	Funds to pay for the operating expenses and initial claims from an earthquake	Funds in excess of the Liquidity Fund to pay claims following an earthquake	Bond proceeds from the CEA's issuance of revenue bonds to pay claims following an earthquake	Funds to pay for the mitigation program and associated expenses
Treasuries / Agencies Composition	Up to 100% Treasuries / Max. 50% Agencies	100% Treasuries	Up to 100% Treasuries / Max. 50% Agencies	Up to 100% Treasuries / Max. 50% Agencies
Maximum Final Maturity	181 days	5 years	5 years	91 days
Current Portfolio	$897 million	$3.9 billion	$664 million	$25 million
1-Year Total Return	0.07%	0.63%	0.83%	0.06%
Effective Duration	0.17 years	1.63 years	2.03 years	0.11 years

CEA Investment Portfolio Statistics - As of November 30, 2014

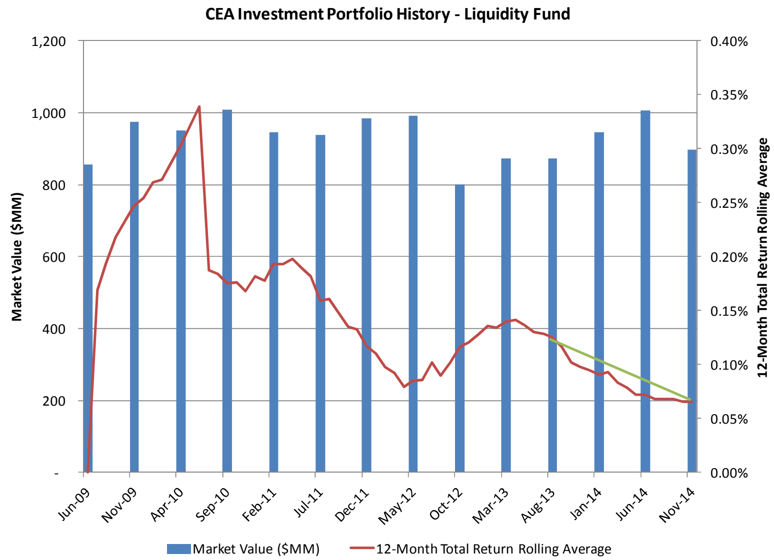
Fund	Market Value ($000's)	Composition (% of Mkt. Value)	12-Month Total Return	12-Month Income Return	Effective Duration (Years)
Liquidity	$897,373	16.2%	0.07%	0.01%	0.17
Primary	$3,949,767	71.3%	0.63%	1.51%	1.63
Claims-Paying	$664,163	12.0%	0.83%	1.57%	2.03
Mitigation	$24,899	0.4%	0.06%	0.29%	0.11
Total	**$5,536,202**	**100.0%**	**0.56%**	**1.27%**	**1.44**
Primary and Liquidity Combined	**$4,847,140**	**87.6%**	**0.53%**	**1.23%**	**1.36**
Primary, Liquidity, and Claims-Paying Combined	**$5,511,303**	**99.6%**	**0.56%**	**1.27%**	**1.44**

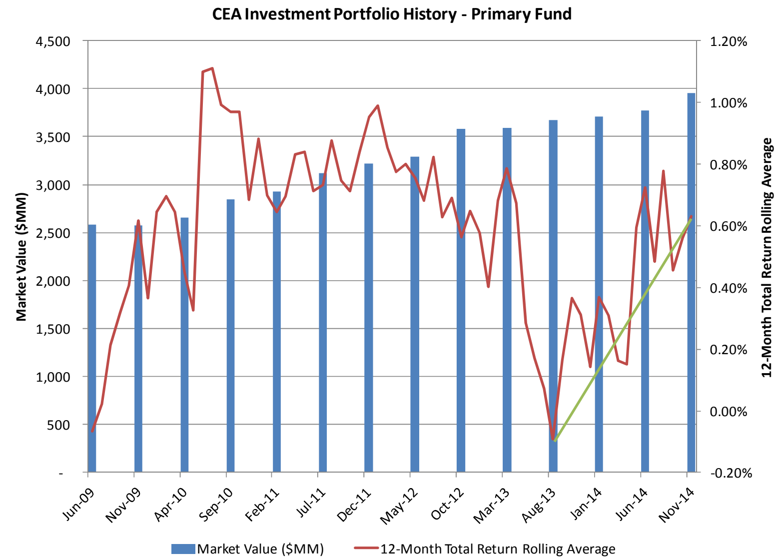
CEA INVESTMENT PORTFOLIO HISTORY – TOTAL

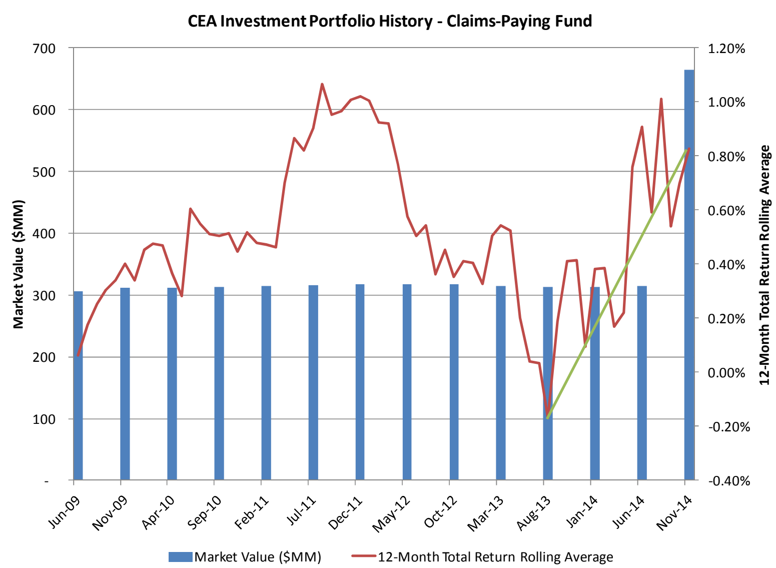


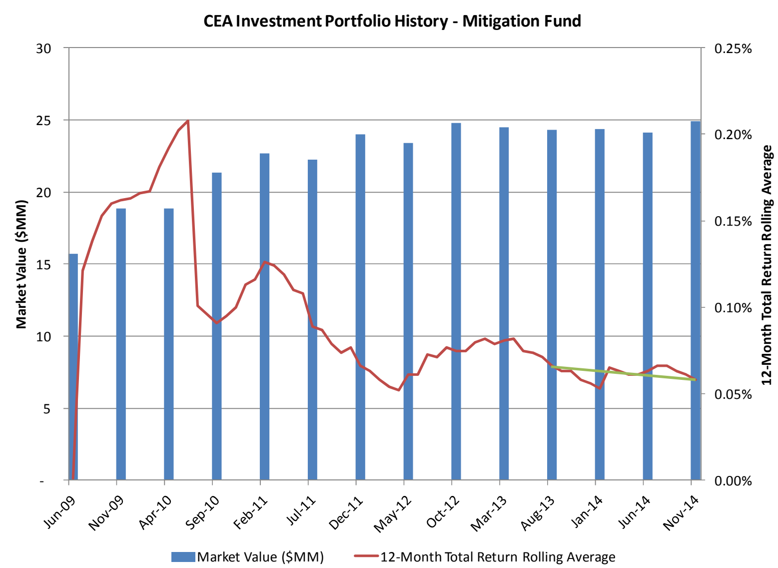
RAYMOND JAMES

CEA INVESTMENT PORTFOLIO HISTORY – BY FUND









INTEREST RATES

- The economists surveyed by Bloomberg expect short-term interest rates to remain low at least until the middle of 2015, if not longer, but project increases in the range of approximately 100 basis points in the 2 and 10-year Treasury rates by the end of the fourth quarter of 2015

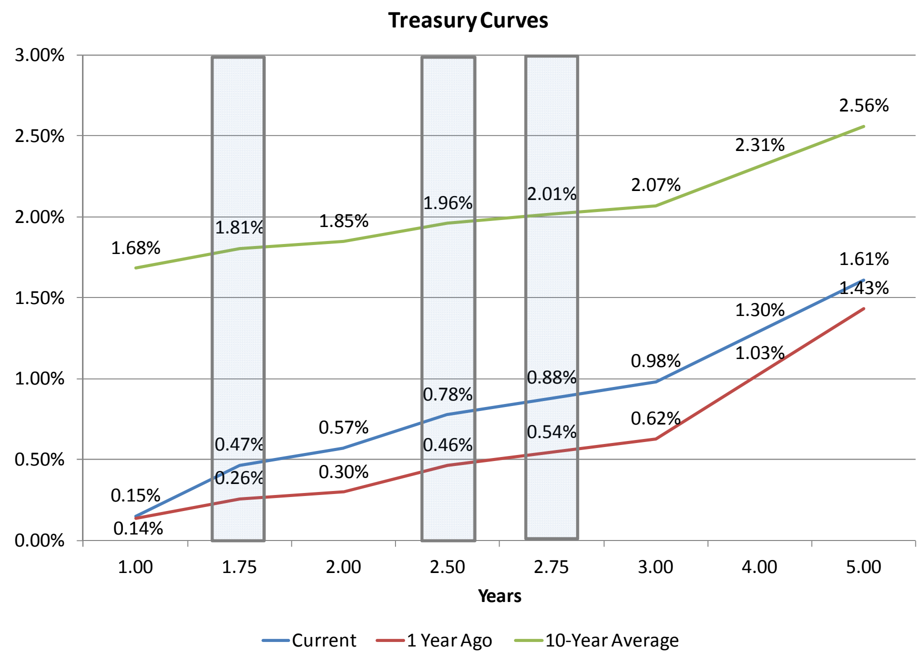
Bloomberg Consensus

US Treasury	Current Rate	2014	2015				2016	Change from Current Rate to 2015 Q4
		Q4	Q1	Q2	Q3	Q4	Q1	
2 Year	0.47%	0.58%	0.80%	1.05%	1.29%	1.57%	1.77%	1.10%
Economists Surveyed		68	66	68	66	67	50	
10 Year	2.17%	2.56%	2.71%	2.89%	3.08%	3.22%	3.33%	1.05%
Economists Surveyed		87	84	85	83	83	59	
30 Year	2.89%	3.24%	3.39%	3.59%	3.74%	3.88%	3.98%	0.99%
Economists Surveyed		63	62	63	62	62	48	

*Source: Bloomberg as of December 1, 2014.

- **The yield curve is steep as investors are expecting interest rates to rise in mid-to-late 2015, or possibly 2016**

- The yield curve is currently steep as interest rates are expected to increase



- **CEA can take significant advantage of the yield curve steepness by increasing the duration of the portfolio by 0.75 years to 1.0 year**

INVESTMENT POLICY SUMMARY

- As interest rates are expected to rise beginning in mid to late 2015, CEA can take advantage of the yield curve by increasing its portfolio's duration by 0.75 years to 1.0 year or from 1.75 years to 2.5 years or 2.75 years
  - The incremental return for increasing duration from 1.75 to 2.5 years is approximately 0.31%, or $6.2 million in incremental return on an investment of $2 billion, or approximately 50% of the Primary Fund portfolio
  - The incremental return for increasing duration from 1.75 to 2.75 years is approximately 0.42%, or approximately $8.3 million in incremental return on an investment of $2 billion, or approximately 50% of the Primary Fund portfolio
- By increasing the duration of the portfolio but not changing anything else, the CEA would not take on any additional risk except a marginal increase in duration risk, however, this risk is partially mitigated as the CEA fund balance has significantly increased since the 1.75 year duration limit was implemented at its inception
  - CEA's total portfolio has grown from approximately $3.8 billion in the July 2009 to $5.5 billion as of November 2014

CONCLUSION

- Domestic economic sluggishness, regulatory reform, turmoil in the Ukraine, European and Asian financial crises, and Federal Reserve actions have combined to create a volatile financial market environment, which have dampened global growth

- While the U.S. economy has recovered all jobs lost during the recession, there is a significant portion of the population that is long-term unemployed and the labor participation rate is historically low

- There is a slack in the labor and capital markets and a record low level of labor participation. The labor prospects for the long-term unemployed decline further the longer they remain unemployed

- Interest rates are currently low from a historical perspective and are not expected to move as quickly

- Historically low interest rates have led to record setting corporate bond issuance amid strong investor demand. As there is financial unrest in Europe and Asia, the U.S. is a relatively safer alternative and is attractive from a yield standpoint relative to other countries

- The CEA has benefitted from strong investor demand in the capital markets as seen from the success of the Ursa Re 2014-1 risk transfer transaction and the pricing of the CEA's $350 million revenue bond transaction

- With historically low interest rates and a steepening yield curve, CEA can take advantage of the yield curve by increasing its portfolio's duration by 0.75 years to 1.0 year and generate approximately $6.2 million in incremental income, or from 1.75 years to 2.75 years and generate approximately $8.3 million in incremental income on an investment of $2 billion, or approximately 50% of the Primary Fund portfolio

DISCLAIMER

The information contained herein is solely intended to facilitate discussion of potentially applicable financing applications and is not intended to be a specific buy/sell recommendation, nor is it an official confirmation of terms.

The analysis or information presented herein is based upon projections and have limitations. No representation is made that it is accurate or complete or that any results indicated will be achieved. In no way is past performance indicative of future results. Changes to any prices, levels, or assumptions contained herein may have a material impact on results. Any estimates or assumptions contained herein represent our best judgment as of the date indicated and are subject to change without notice.

Governing Board Memorandum

December 17, 2014

Agenda Item 8:	Update on Participating Insurer Engagement in CEA's Advertising Campaigns
Recommended Action:	Information only—no action required

Background:

CEA has been working with annualized, Board-approved advertising budgets since 2011. These annualized budgets have been established to support two types of advertising programs designed to help CEA's participating insurers (PIs) sell earthquake insurance policies:

1. In 2011, CEA launched the Marketing Value Program (MVP), which offers local advertising support in the form of personalized direct-mail valued at about $600, for individual agents and producers who are CEA-trained to sell CEA policies.
2. In 2014, CEA introduced the Cooperative Marketing Venture (CMV), which offers PIs a percentage of CEA's online advertising budget ($1.7 million) to connect co-branded ads (produced and placed by CEA) with related earthquake-insurance information displayed on PI websites for the benefit of consumers seeking information on purchasing a CEA policy.

Analysis:

Marketing Value Program (MVP)

CEA training to sell earthquake insurance is required for agent/producer participation in the MVP. Eligible MVP participants can receive up to 500 pieces of personalized, postage-paid, policy-specific direct mail (available in three languages for homeowners) to address and mail to CEA-insurance prospects. Free "Emergency Preparedness Starter Kits" also available for custom fulfillment in the agent's name for distribution to new CEA policyholders.

- Agent training numbers were highest in 2011 with pending introduction of Homeowners Choice.
- MVP registration soared in 2012 apparently because of the high number of eligible, engaged agents.
- Direct-mail numbers peaked in 2013 because policy-specific materials became available.
- "Earthquake Preparedness Starter Kit" supplies were exhausted for the first time in 2014.

Despite these successes, the number of PI agents/producers currently registering in training and in the MVP is at the lowest level since the MVP program was created in 2011. Reasons include:

- Continuing-education credits for training only be renewed only every two years;
- One of two CEA on-site agent-training staffers was not replaced because of workforce-planning decisions; and
- The MVP offering, to date, has been limited to direct mail.

2011-2014 MVP Summary*				
	2011	2012	2013	2014
Agents/Producers Trained	3,193	2,295	1,589	1,068
MVP Agents/Producers Registered	3,317	4,144	2,657	2,469
MVP Direct-Mail Delivered (Millions)	2.50	2.76	2.98	2.77
**17 of 19 PIs with agents/producers participating in MVP*				

To re-energize agents in 2015, the CEA use a new portal to offer CEA-trained, MVP-registered agents/producers *year-round* availability of personalized, policy-specific direct mail in English, Spanish, and Chinese languages. The new portal will link to a new mobile application for agents that will streamline online premium estimates and offer earthquake insurance sales tips.

Cooperative Marketing Venture (CMV)

In April 2014, CEA launched the CMV on CaliforniaRocks.com.

The CMV was designed to offer co-branded online advertising opportunities for PIs and to promote a presence on PI websites for CEA and earthquake insurance information.

CEA's entire online advertising budget of $1.7 million was dedicated to CMV implementation. PI percentages of the CEA's online budget were allocated according to their respective percentages in the CEA's book-of-business. Participating PI websites were prompted to offer information on CEA and earthquake insurance, as well as information on how to purchase a CEA policy.

Five of the CEA's 21 PIs are participating in the CMV. Each has its home-insurance information featured on a custom CaliforniaRocks.com website co-branded with CEA, which links the consumer to CEA-policy-sales information on the PI's own corporate website. Three of the five PIs chose to use online ads co-branded with the CEA–representing 24 percent of the available budget.

CEA / Earthquake Insurance Information on PI Websites*							
	Total PIs	Homepage	Product	Homeowner	Renter	Condo	Hazard
CEA	11	0	7	3	1	1	2
EQ Ins	8	0	1	4	2	2	2
**Both CEA and earthquake information on three of 19 PI websites*							

As of December 10, 2014, while a few additional PIs have indicated potential or future interest in the CMV, none of them has committed to 2015 CMV participation.

<u>Recommendation</u>:

No action required – information only.

Governing Board Memorandum

December 17, 2014

Agenda Item 9: CEA Advisory Panel update—Mark Simmonds

Recommended Action: No action required - information only

CEA Advisory Panel Chair Mark Simmonds will provide a summary of the proceedings from the October 23, 2014, Advisory Panel meeting.

Governing Board Memorandum

December 17, 2014

Agenda Item 10:	CEA Proposed Rate and Form Application
Recommended Action:	Approve the rate and form applications and their supporting documents; instruct staff to submit the rate and form applications to the Insurance Commissioner for consideration and approval

I. INTRODUCTION

CEA staff seeks the Governing Board's approval and authority to submit an application to the Insurance Commissioner to approve new CEA premium rates for all CEA earthquake-insurance products.

Staff also proposes to implement revised versions of all of its insurance policy forms. Because, by law and regulation, CEA insurance policy forms must be reviewed and approved by the Insurance Commissioner before implementation, Staff also seeks the Board's authorization to submit the revised policy forms to the Department of Insurance for regulatory review and approval.

The form filing is being made to improve policy language, expand certain coverages, provide additional coverage options (including expanded options for limits and deductibles) to policyholders, and adjust rate and premium levels. The net result of the filing, when approved, will be a decrease in the CEA's statewide average rates.

The application proposes:

- An 8.2% decrease in the CEA's statewide average rates
- Expanded coverage limits and deductible options
- An enhanced hazard mitigation discount for qualifying homeowners
- A new edition of each of the CEA's policy forms, with enhancements and refinements in coverages, definitions, and policy language
- The availability of new, optional endorsements that will provide frequently requested coverage for items otherwise excluded from coverage

As a result of implementing the proposed changes, individual policyholders may see their rates increase or decrease, depending on the product, the insured-property location, and related rating factors. More specifically:

- More than 40 percent of residential policyholders will see rates fall by more than 10 percent.
- Another 30 percent will see stable or slightly lower rates.
- And fewer than 20 percent of policyholders would see an increase over 5 percent.

All proposed changes are to be implemented for new and renewal policies effective January 1, 2016, or later.

In the Sections below:

- Section II describes the proposed coverage changes.
- Section III addresses the proposed rate changes.
- Section IV provides a brief overview of the supporting exhibits.

II. PROPOSED COVERAGE CHANGES

The proposed revised policy forms each contain significant changes—some are not particularly substantive but clarify or modernize the CEA policy forms, while some modify policy terms or coverages in significant respects. The most significant changes are summarized in this section.

Changes Applicable to All CEA Policies

1. *Expanded Coverage Limit and Deductible Options*

   This filing expands available deductible and coverage options for all products, as follows:

   - Coverage C, Contents: In addition to current limit options of $5,000, $25,000, $50,000, $75,000, and $100,000, policyholders could choose limits of $150,000 or $200,000.
   - Coverage D, Loss of Use (which includes additional living expenses): In addition to current limit options of $1,500, $10,000, $15,000, and $25,000, policyholders could choose limits of limits of $50,000, $75,000, or $100,000.
   - Deductible options: In addition to the current 10% and 15% deductible options, policyholders could choose a 5%, 20%. or 25% deductible. Coverage D continues to have no deductible.

2. *Optional Coverage – Breakable Items*

   Certain breakable items of personal property, such as glassware, ceramics, and crystal, are not covered under the CEA policies' present Coverage C, Personal Property.
   - The CEA will file to offer policyholders an option to buy coverage for these items—an optional endorsement extending coverage (by deleting an exclusion in the policy) is part of this filing.

3. *Personal Property Sublimits Added*

   The CEA proposes to add a $3,000 sublimit for each of several classes of damageable personal property such as jewelry, collectible items, and beverages in glass. This restriction of coverage is consistent with how most residential property insurance policies in California treat these items.

4. *Water Damage/Mold*

Entry of precipitation. During the policy-review process, the CEA identified a potential coverage gap between the CEA policy and underlying residential policies where precipitation entering the structure through an opening that was the direct result of earthquake damage.

- The revised policy would cover this damage, with the existing limited categories of water damage that are already covered by the CEA, subject to applicable limits and deductibles.
- This is an increase in coverage over the current policy.

Mold. The current policy is silent on damage from mold—that silence means mold could effectively be treated as a covered peril under a CEA earthquake policy, even though earthquake is the only expressly covered peril. Losses from mold are not contemplated in CEA's rate structure, making policy revisions necessary.

- Because water damage can be a covered loss under a CEA policy that provides Coverage A real property coverage, the revised policy forms will provide limited coverage for damage to real property caused by mold, subject to a $5,000 sublimit within the Coverage A limit of insurance.
- All other mold loss will be excluded.
- Because the current policy is silent on mold and mold damage, the new sublimit and exclusion could be viewed as a restriction in coverage.
- An exclusion for mold-related losses is consistent with the treatment of this type of losses by other insurers insuring the same types of property.

Homeowners and Manufactured Homes (Mobilehomes) Proposed Coverage Changes

1. *Increased Chimney Sublimit*

In the current policy, losses paid for damage to chimneys is limited to a total of $5,000, as a sublimit to the dwelling coverage.

- The CEA proposes to increase the chimney(s) sublimit to $10,000.
- This is an increase in coverage over the current policy.

2. *New Increased-Limit Option for Building Code Upgrade Coverage*

Building code upgrade (BCU) coverage of $10,000 is presently a no-cost inclusion for homeowners and manufactured homes (mobilehomes), subject to the deductible. Homeowners can also buy an additional $10,000 of BCU for an additional premium.

- This filing would extend the additional-BCU coverage option to manufactured homes (mobilehomes) and add a new BCU limit option of an additional $20,000.
- The maximum available for BCU would thus increase to $30,000 for both homeowners and manufactured homes (mobilehomes), with $10,000 already in the policy at no cost and either $10,000 or $20,000 as additional (optional) limits.

Additionally, the policy would be amended to state that all loss covered by BCU, up to the limit of insurance, will be applied to meet the deductible.

- BCU loss is not applied to meet the deductible in the current policy, so this is an increase in coverage over the current policy.

3. *Loss Assessment*

   Certain single-family houses insured under a CEA homeowners policy are in "common interest developments," where the homeowner may face potential loss assessments for damage to common areas. The CEA has never extended coverage for this exposure under the homeowners product.

   - The CEA proposes a $10,000 sublimit for loss assessment coverage, to cover items like those covered by the condominium loss-assessment product.
   - This is an increase in coverage over the current policy.

4. *Optional Coverage – Masonry Veneer*

   Exterior masonry veneer is excluded under the CEA policy. The filing would make masonry veneer coverage optionally available through an endorsement deleting that exclusion.

   - Because the CEA does not currently collect information regarding masonry veneer, to establish the rate for this coverage the CEA reviewed other California earthquake-insurer rate filings.
   - This optional coverage would not be available for manufactured homes (mobilehomes).

5. *Increased Hazard-Mitigation Premium Discount*

   The CEA is proposing a new hazard-mitigation premium discount for homeowners of 10% or 20%, subject to verification of retrofit compliant with applicable standards.

   - The current 5% hazard-mitigation premium discount for homeowners will continue for new and renewal business that do not verify the retrofit.

6. *Energy Efficient and Environmental Safety Replacement Upgrades*

   An expanded coverage would pay to replace damaged covered dwelling property with higher-cost energy-efficient, renewably sourced, or environmentally safe components.

   - Provided as a $25,000 sublimit of the Coverage A limit of insurance.
   - This is an increase in coverage over the current policy.

Common Interest Development (Condominium Unit): Proposed Coverage Changes

1. *Expanded Limit Options for Coverage A (Building Property)*

   The current policy provides building property (Coverage A) coverage with a $25,000 limit of insurance (when the coverage is purchased). With this filing, the CEA would expand available coverage options for building property (Coverage A).

   - In addition to the current limit of $25,000, policyholders could choose limits of $50,000, $75,000, or $100,000.

2. *Expanded Deductible Options for Coverage A (Building Property)*

   The current policy provides building property (Coverage A) coverage, subject to a $3,750 deductible (when that coverage is purchased). With this filing, the CEA would change the policy's deductible structure from a flat amount to a percentage of the selected limit, similar to the CEA homeowners and manufactured homes (mobilehomes) Homeowners Choice Coverage A product.

- Applying the deductible as a percentage of the limit is consistent with how other insurers provide the coverage. This change could, in some cases, reduce coverage overall, resulting in lowered rates.

3. *Expanded Deductible Options for Coverage C (Personal Property)*

   The current policy provides personal property (Coverage C) coverage, subject to a $750 deductible regardless of the coverage limit purchased. With this filing, the CEA would change the policy's deductible structure to make the deductible a percentage of the selected limit, similar to the CEA homeowners and manufactured homes (mobilehomes) Homeowners Choice Coverage C product.
   - Applying the deductible as a percentage of the limit is consistent with how other insurers provide the coverage. This change could, in some cases, reduce coverage overall, resulting in lowered rates.

4. *Expanded Coverage Limit Options for Coverage E (Loss Assessment)*

   Currently, condominium-unit owners can buy Loss Assessment coverage with a limit of $25,000, $50,000, or $75,000. A new, optional Loss Assessment limit of $100,000 would be offered.

5. *Additional Deductible Options*

   As noted above, all current and new limits would be available with deductibles of 5%, 10%, 15%, 20%, or 25%.

6. *Increased Chimney Sublimit*

   For those condominium owners who buy Coverage A, the sublimit for covered chimneys would increase from $5,000 to $10,000, as in the Homeowners policy.
   - This is an expansion of coverage from the current policy.

7. *Energy Efficient and Environmental Safety Replacement Upgrades*

   An expanded coverage would pay to replace damaged covered dwelling property with higher-cost energy-efficient, renewably sourced, or environmentally safe components, subject to a $10,000 sublimit of the Coverage A limit of insurance.
   - This is an expansion of coverage from the current policy.

Renters: Proposed Coverage Changes

Expanded Deductible Options for Coverage C (Personal Property. As with the Common Interest Development (Condominium) policy discussed above, the Renters policy now provides for a $750 deductible, regardless of the limit purchased. And for the same reasons, the new policy form would change the deductible to a percentage of the selected limit.

- This may cause a substantial rate reduction for this coverage.

III. LOSS MODELING UNDERLYING RATE/PREMIUM CHANGES

The rate application presented to the Board today is based on staff's thorough analysis of the CEA's December 2012 portfolio, using *RQE (Risk Quantification & Engineering), Version 14*.

This catastrophe-loss model, developed by EQECAT, permits the CEA to propose rates that incorporate the latest available scientific information, consistent with the state-of-the-art knowledge of California seismic hazard required by the CEA law.

The basic seismic hazard in the model was developed directly from the June 2008 USGS/CGS time-independent implementation of the Uniform California Earthquake Rupture Forecast (UCERF2) model. EQECAT then incorporated time-dependent probabilities from data from the Working Group on California Earthquake Probabilities (WGCEP 2007), also used in the UCERF2 model.

Vulnerability functions were updated to be consistent with the Next Generation Attenuation equations that are part of UCERF2.

This is the same science that underlies current CEA rates, which are based on EQECAT USQUAKE™ WORLDCAT enterprise model (WCe 3.15). In 2013, EQECAT changed its modeling platform to take advantage of faster computers, resulting in the new RQE model. But the underlying science remains unchanged in the California earthquake model the CEA uses.

The USGS has updated the Uniform California Earthquake Rupture Forecast– Time-Independent Model (UCERF3.) However, the time-dependent model, upon which the CEA has historically relied, is still under review. Rather than wait for the completion of the time-dependent model and its incorporation into the commercial loss models - which may not occur until sometime in 2016 - the CEA is proceeding with the overall indicated rate reduction.

Schedule of attachments to this memorandum:

Attachment A	– Proposed Rate and Form Application
Attachment A-1	– Proposed CEA Rate Manual - Narrative
Attachment A-2	– Proposed CEA Rate Manual
Attachment A-3	– Current CEA Rate Manual – unedited
Attachment A-4	– Proposed Basic Earthquake Policy – Homeowners – BEQ3-B (xx/20xx) - Narrative
Attachment A-5	– Proposed Basic Earthquake Policy – Homeowners – BEQ3-B (xx/20xx)
Attachment A-6	– Current Basic Earthquake Policy – Homeowners – BEQ-3B (01/2012) – including edits for comparison purposes
Attachment A-7	– Current Basic Earthquake Policy – Homeowners – BEQ-3B (01/2012) – unedited
Attachment A-8	– Proposed Basic Earthquake Policy – Homeowners Choice – BEQ-3C (xx/20xx) - Narrative
Attachment A-9	– Proposed Basic Earthquake Policy – Homeowners Choice – BEQ-3C (xx/20xx)
Attachment A-10	– Current Basic Earthquake Policy – Homeowners Choice – BEQ-3C (07/2012) – including edits for comparison purposes

Attachment A-11 – Current Basic Earthquake Policy – Homeowners Choice – BEQ-3C (07/2012) – unedited
Attachment A-12 – Proposed Basic Earthquake Policy – Renters – BEQ-4B (xx/20xx) - Narrative
Attachment A-13 – Proposed Basic Earthquake Policy – Renters – BEQ-4B (xx/20xx)
Attachment A-14 – Current Basic Earthquake Policy – Renters – BEQ-4B (01/2012) – including edits for comparison purposes
Attachment A-15 – Current Basic Earthquake Policy – Renters – BEQ-4B (01/2012) – unedited
Attachment A-16 – Proposed Basic Earthquake Policy – Common Interest Development – BEQ-6B (xx/20xx) - Narrative
Attachment A-17 – Proposed Basic Earthquake Policy – Common Interest Development – BEQ-6B (xx/20xx)
Attachment A-18 – Current Basic Earthquake Policy – Common Interest Development – BEQ-6B (01/2012) – including edits for comparison purposes
Attachment A-19 – Current Basic Earthquake Policy – Common Interest Development – BEQ-6B (01/2012) – unedited
Attachment A-20 – Proposed Optional Endorsement – Coverage For Exterior Masonry Veneer – CEA03A (xx/20xx)
Attachment A-21 – Proposed Optional Endorsement – Coverage For Breakables – CEA04A (xx/20xx)
Attachment A-22 – Proposed CEA Earthquake Insurance Application – Homeowner and Mobilehomeowner (xx/20xx)
Attachment A-23 – Proposed CEA Earthquake Insurance Application – Renter and Condominium (xx/20xx)
Attachment A-24 – Current CEA Insurance Application (07/2012) – unedited
Attachment A-25 – Proposed CEA Earthquake Insurance Application Instructions (xx/20xx)
Attachment A-26 – Current CEA Insurance Application Instructions (07/2012) – including edits for comparison purposes
Attachment A-27 – Current CEA Insurance Application Instructions (07/2012) – unedited
Attachment A-28 – Proposed CEA Choice Important Notice (xx/20xx)
Attachment A-29 – Current CEA Choice Important Notice – including edits for comparison purposes (07/2012)
Attachment A-30 – Current CEA Choice Important Notice (07/2012) – unedited
Attachment A-31 – Proposed CEA Earthquake Insurance Dwelling Retrofit Form – CEADRV (xx/20xx)
Attachment A-32 – Proposed California Earthquake Authority Availability of Hazard-Reduction Premium Discount Form – CEA 02S (xx/20xx)
Attachment A-33 – Current California Earthquake Authority Availability of Hazard-Reduction Premium Discount Form – CEA 02S (01/2012) – including edits for comparison purposes
Attachment A-34 – Current California Earthquake Authority Availability of Hazard-Reduction Premium Discount Form – CEA 02S (01/2012) – unedited
Attachment B – Illustration of impact on policyholders' annual premiums and rates

Recommended Action:

CEA staff recommends that the Governing Board:

1. Approve the rate and form application, which includes the associated new CEA Rate Manual, a revised CEA Earthquake Insurance Application, a new edition of each of the CEA's residential earthquake insurance policy forms, and two new optional coverage options "Coverage For Breakable Items" and Coverage For Masonry Veneer"; and
2. Authorize CEA staff to submit the complete application to the Insurance Commissioner for consideration and approval.

AGENDA ITEM #10

The attachments for AGENDA ITEM #10 are located in the Governing Board binder labeled **Agenda Item #10 – CEA Proposed Rate and Form Application.**

Governing Board Memorandum

December 17, 2014

Agenda Item 11: CEA Mitigation Program:
· Prestandard Project (ATC 110)
· South Napa Earthquake-related Research Project

Recommended Actions:
· Prestandard Project (ATC 110): Approve Budget
· South Napa Earthquake-related Research Project: Information Only – no action required

---

Prestandard Background and Analysis:

The California Earthquake Authority and the Applied Technology Council ("ATC") contracted in November 2013 to collaborate on a project entitled *ATC-110: Development of a Prestandard for the Evaluation and Retrofit of One and Two Family Light Frame Residential Buildings*.

The objective of this multi-year project is to develop a prestandard[1] for the evaluation and retrofit of one- and two-family light-frame residential buildings. Currently there are detailed standards in the form of guidelines and model codes that were developed for the analysis and retrofit of commercial and multi-family structures. Many of these model codes have been adopted, by reference, into the California Existing Building Code.

There is only one existing standard for the retrofit of single-family residential structures. That standard is Appendix Chapter A3 (Chapter A3) of the International Existing Building Code titled *Prescriptive Provisions for Seismic Strengthening of Cripple Walls and Sill Plate Anchorage of Light, Wood-framed Residential Buildings*.

Chapter A3 provides prescriptive provisions that allow homeowners and contractors (without the services of an engineer) to properly anchor and brace certain vulnerable dwellings, thereby improving the dwellings' expected earthquake performance. The retrofit solutions in Chapter A3 and in associated prescriptive plan sets[2] ("Plan Set A" and the "Los Angeles Standard Plan Set") have made it possible for homeowners to effectively strengthen their homes against earthquake damage in a cost-effective manner.

[1] A "pre-standard" or sometimes "prestandard" is an approved model or something considered by an authority or by general consent as a basis of comparison.

[2] A "prescriptive plan set" is a pre-engineered set of building plans that is building inspection departments adopt. In this case, the plan sets are used to guide retrofits of certain wood-frame houses.

There are many conditions in structures constructed before modern seismic codes that make them vulnerable to disruptive, costly, and dangerous earthquake damage. No prescriptive guidelines or plan sets exist for the seismic retrofit of these vulnerabilities.

Because additional guidelines are needed to create a more seismic resilient California, ATC 110 will build on available technical-resource documents, extending them beyond their current reach to develop a single, standalone engineering-resource document that addresses both structural and nonstructural evaluation and retrofit of wood light-frame residential buildings. The beneficiaries will be homeowners who wish to improve the expected seismic performance of their houses.

The work is co-funded by the CEA and the Federal Emergency Management Agency (FEMA).

In cooperation with FEMA's Mike Mahoney and CEA Chief Mitigation Officer Janiele Maffei, ATC assembled a project technical committee and steering committee that include structural and geotechnical engineers, contractors, and academics who are experts in the field of wood-framed seismic analysis, retrofit, research and construction.

Many of the ATC 110 team members were involved in the CUREE-Caltech Woodframe Project (http://www.curee.org/projects/woodframe/) completed in the late 1990s, which has been quite valuable to the CEA. The management structure and biographies of the key ATC 110 technical and steering committee members are described in *Appendix A* to this memo.

ATC 110 will address practical assessment and retrofit of seismic vulnerabilities for light wood-framed residential structures. The project technical committee has completed a *Prestandard Development Plan for ATC 110*, which was endorsed by the project steering committee.

When complete, the ATC 110 prestandard will be ready to go through an American National Standards Institute (ANSI) consensus process to establish a standard—this process is required to finalize a document that can be readily adopted, by reference, into existing building codes.

The recommended tasks and engineering studies in the ATC 110 development plan are intended to: (1) investigate the behavior of existing configurations and construction details associated with typical dwellings; (2) evaluate the expected seismic performance; (3) develop a simplified assessment methodology to identify deficiencies without engineering calculations; and (4) develop prescriptive retrofitting techniques that can be applied by non-engineers to eliminate deficiencies.

The ATC 110 development plan describes the program approach as follows:

- The approach will be vulnerability-based, with the objective of hazard reduction rather than mandating overall building performance through systematic assessment and retrofit. Guidance to make a systematic engineered performance assessment will be provided (to the extent possible) based on this prestandard work.

- The prestandard is intended to address individual vulnerabilities or systematically address all vulnerabilities.
- The prestandard will not include triggers for use. It is anticipated that voluntary or mandatory use will be triggered by documents outside of the standard.

Focus will be on more commonly occurring and solvable vulnerabilities, but all potential vulnerabilities will be identified, even if assessment and retrofit measures are not developed.

The ATC 110 project will deliver a comprehensive document with pre-engineered, prescriptive details for use by homeowners and contractors. It will also provide detailed information for engineers, to assist in completing cost-effective seismic retrofits.

The proposed ATC 110 table of contents:

1.1 Introduction

1.2 General Requirements

Based on Prestandard TOC Chapters 2, 14, and Appendix Chapters A, D and E.

1.3 Cripple Walls and Anchorage to Foundation

Based on Prestandard TOC Chapters 3 & 4

1.4 House or Room over Garage or Deck

Based on Prestandard TOC Chapter 6

1.5 Hillside Dwellings

Based on Prestandard TOC Chapter 5

1.6 Split Level Dwellings

Based on Prestandard TOC Chapter 7

1.7 Inadequate Wall Bracing- Occupied Spaces

Based on Prestandard TOC Chapter 8

1.8 Anchorage of Slab-on-Grade Dwellings

Based on Prestandard TOC Chapter 10

1.9 Parts and Portions of Dwellings

Based on Prestandard TOC Chapters 11, 12, and 13

1.10 Recommendations and Priorities

The table of contents includes an introduction, a chapter on general requirements, six chapters on categories of structural vulnerabilities, and a final chapter with recommendations and priorities.

General requirements include the following:

- Initial assessment and retrofit-design methodologies
- Performance measures and criteria
- Prestandard development
- Development of engineered approach

The six chapters on vulnerabilities cover seismic vulnerabilities or deficiencies that are commonly found in wood-frame dwellings.

It is critical that the ATC 110 prestandard project and resulting document move forward expeditiously, in order to provide prescriptive residential retrofit measures to homeowners. For that reason, the ATC 110 team has prioritized the table of contents elements above and captured the most common dwelling vulnerabilities as priorities.

The ATC team recommends proceeding with the tasks in priority levels 1 and 2 (addressing only 3 of the 6 structural vulnerabilities), as described in the following table:

Recommendations for Prioritizing Tasks:

Priority Level	Task or Engineering Study	Approximate Timeline
1	1.2 General Requirements	1 year
2	1.3 Cripple Walls and Anchorage to Foundation	3 years
	1.4 House or Room over Garage or Deck	
	1.5 Hillside Dwellings	
3	1.6 Split-Level Dwellings	6 years
	1.7 Inadequate Wall Bracing- Occupied Spaces	
	1.8 Anchorage of Slab-on-Grade Dwellings	
	1.9 Parts and Portions of Dwellings	

The General Requirements Chapter will be appropriate for the final four structural vulnerability chapters, should the CEA and FEMA decide to proceed with those chapters at a later date.

Recommendations:

1. The CEA and FEMA conceived the ATC 110 project to fill a void in information available to homeowners to improve the seismic resistance of their homes.

2. The original $1 million budget for the three-year program, which the CEA Governing Board approved in 2013, was a preliminary figure derived by the FEMA and CEA project directors at that time.

3. After considerable deliberation throughout 2014, the ATC 110 management, technical, and steering members have worked to develop a detailed work-plan that prioritizes the serious vulnerabilities that exist in wood-frame single-family structures, especially older structures. The work plan now includes a detailed outline, schedule, and budget for the program.

4. This fresh and thorough look has produced a new budget that is significantly higher than the figure presented to the Board in 2013. But FEMA, CEA, and ATC management are unanimous, that that the scope and work priorities are appropriately established and that the resulting project document will be of great use to hundreds of thousands of seismically vulnerable houses in California and the families who occupy them.

CEA staff recommends that the Board authorize funding and continuing to co-manage Priority Level tasks 1 and 2, as described above, in accordance with the recommendations contained in the ATC 110 Prestandard Development Plan.

The budgeted CEA expenditures for 2015 through 2017, for tasks 1 and 2, would be $1 million per year, for a total over three years of $3 million.

Update on proposed mitigation-related research: South Napa Earthquake

Background and Analysis:

On August 24, 2014 at 3:20 AM, a magnitude 6.0 earthquake struck in the American Canyon area, just South of Napa, California. The earthquake was the largest to hit California since the 1994 Northridge earthquake. According to the Santa Rosa Press Democrat the quake killed one person and injured 200 including a young man who was gravely injured when bricks from the fireplace fell on his.

Collect data regarding performance of retrofitted and non-retrofitted single-family dwellings in the August 24, 2014 earthquake in the American Canyon area

This research project seeks to compile information on the performance of single family dwellings during the August 24, 2014 South Napa M6.0 earthquake. No data currently exists to identify seismically retrofitted and non-retrofitted single-family dwelling performance in Napa, Solano, and Sonoma counties.

Recommendation: For information only. No action required.

Appendix A: ATC 110 Management Plan

Program Manager: Applied Technology Council (ATC)

ATC is a nonprofit, tax-exempt corporation established in 1973 through the efforts of the Structural Engineers Association of California.

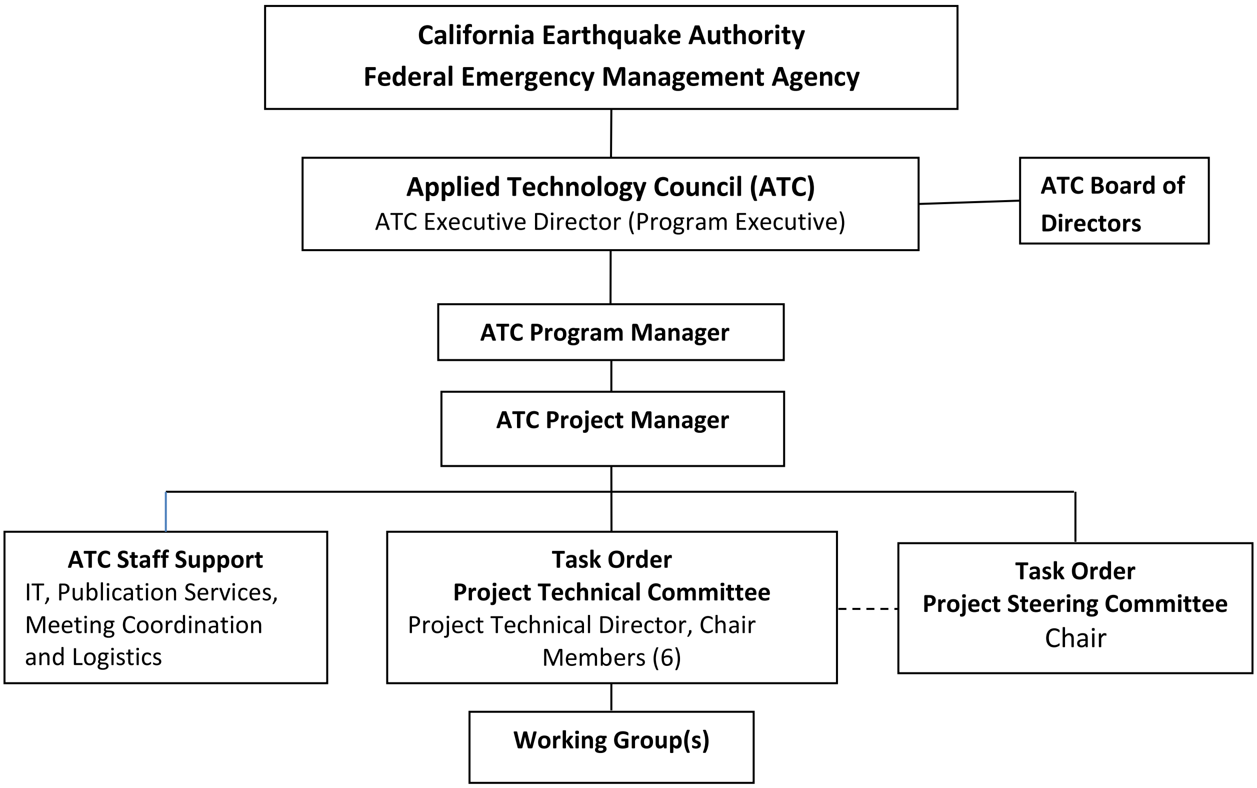
ATC's mission is to develop and promote state-of-the-art, user-friendly engineering resources and applications for use in mitigating the effects of natural and other hazards on the built environment. ATC also identifies and encourages needed research and develops consensus opinions on structural-engineering issues in a nonproprietary format. ATC thereby fulfills a unique role in funded information transfer.

ATC is guided by a Board of Directors consisting of representatives appointed by the American Society of Civil Engineers, the National Council of Structural Engineers Associations, the Structural Engineers Association of California, the Western Council of Structural Engineers Associations, and four at-large representatives who are focused on the practice of structural engineering.

Project management and administration are carried out by a full-time executive director and support staff.

Project work is conducted by a wide range of highly qualified consulting professionals, thus incorporating the experience of many individuals from academia, research, and professional practice who would not be available from any single organization. Funding for ATC projects is obtained from government entities and from the private sector in the form of tax-deductible contributions.

ATC 110 Management Structure – Organizational Chart



ATC Project Manager:

Jon A. Heintz, Registered Structural and Civil Engineer. ATC Director of Projects

At ATC, Jon is responsible for project management, oversight, and quality control on the development of ATC products and publications.

Jon came to ATC after more than 16 years as a structural-design and consulting engineer in professional practice. A licensed civil/structural engineer in California and Alaska, his experience includes work on advanced seismic analysis, evaluation, and strengthening projects, and collaboration with university researchers in analytical studies. He is actively involved in the development of guidelines, codes, and standards for existing buildings, and has participated in post-disaster damage investigations after the 1989 Loma Prieta, 1994 Northridge, and 1999 Chi-Chi Earthquakes, as well as Hurricanes Katrina and Rita in 2005.

Professional affiliations include the Earthquake Engineering Research Institute, the Structural Engineers Association of California, the American Society of Civil Engineers (ASCE)/Structural Engineering Institute (SEI), and the American Institute of Steel Construction. He has served on or led a number of committees, including the Advanced National Seismic System (ANSS) Technical Integration Committee, Structural Engineers Association of Northern California Existing Buildings Committee, and the ASCE/SEI Seismic Rehabilitation Standards Committee.

Project Technical Committee Co-chairs:

Kelly Cobeen, S.E. Wiss, Janney, Elstner Associates, Inc., San Francisco, California

Ms. Cobeen has a special interest in seismic resistance of light-frame construction, applicable to new construction and seismic upgrade of existing buildings.

Ms. Cobeen has been involved in numerous code-development, research, and educational activities. Code development activities include involvement in the NEHRP Recommended Provisions for Seismic Regulations for New Buildings, as well as International Building Code and International Residential Code development.

Colin P. Blaney, S.E. Executive Principal, ZFA Structural Engineers, San Francisco, California

Colin has more than 25 years of experience in structural engineering and design of community colleges and healthcare and correctional facilities in California and Washington.

Colin is engaged with the Structural Engineer's Association of Northern California, in technical and leadership roles. He has an active role in developing and reviewing state and national codes, and has published numerous technical papers for SEAOC and EERI. He has chaired SEAONC's existing building committee and is currently serves on the board as Past-President. He is a SEAONC Fellow.

Project Technical Committee Members:

André Filiatrault, Eng., Ph.D. Professor, Department of Civil, Structural and Environmental Engineering at the State University of New York at Buffalo

John D. Osteraas, Ph.D. P.E. Group Vice President, Exponent Engineering and Scientific Consulting. Dr. Osteraas is responsible for Exponent's Civil Engineering, Buildings and Structures, and Construction Consulting Practices. He specializes in the evaluation of the performance of buildings under extreme loads, including earthquake.

Tom Anderson, residential-seismic-retrofit contractor (retired)

Frank Rollo, P.E., G.E. Senior Consultant and Founding Partner, Treadwell and Rollo, San Francisco, California

Ramin Golesorkhi, Ph.D., P.E., G.E. Vice President/Principal, Treadwell and Rollo, San Francisco, California

Project Steering Committee Chair
David Bonowitz, Structural Engineer

David Bonowitz is a structural engineer with twenty years of earthquake engineering experience, including consulting to city, state, and federal agencies and research or practice in Guam, Japan, and Indonesia. His principal interest is the incorporation of engineering standards into pre- and post-earthquake risk reduction policies.

David chairs the Existing Buildings Committee of the National Council of Structural Engineers Associations. He is past-chair of the SEAONC Existing Buildings and Seismology Committees.

In 2007 he was made a Fellow of the Structural Engineers Association of Northern California.

David is a graduate of Princeton University and holds a master's degree in structural engineering from U.C., Berkeley.

Project Steering Committee:

Vikki Bourcier, S.E. Hohbach-Lewin, Inc., Eugene, Oregon

Dan Dolan, Ph.D., P.E. Professor, Washington State University, Department of Civil & Environmental Engineering, Pullman, Washington

David Khorram, M.A. Superintendent of Building & Safety, City of Long Beach, California

Philip Line, P.E. , Director, Structural Engineering, American Wood Council, Leesburg, Virginia

Thor Matteson, S.E. structural engineering consultant, Berkeley, California

Steve Pryor, P.E., S.E. International Director of Building Systems, Simpson Strong Tie, Dublin, California

Working Groups. Working Groups are responsible for conducting detailed technical work on the investigation and development of residential evaluation and retrofit techniques. Working Groups will be formed by the Project Technical Committee, and additional personnel will be added, on an as-needed basis, during the project.

Governing Board Memorandum

December 17, 2014

Agenda Item 12: Update: California Residential Mitigation Program

Recommended Action: No action required – information only

<u>Background and Analysis</u>:

The California Residential Mitigation Program (CRMP) officially launched its incentive pilot program in September 2013.

The program, called, Earthquake Brace + Bolt – Funds to Strengthen Your Foundation, is a seismic-retrofit incentive program (EBB for short).

The pilot was completed in March 2014, with a total of eight houses retrofitted. After reviewing the pilot program evaluation report the CRMP Board approved a phased expansion of the EBB program.

CRMP found its local approach was a key factor to the pilot's success, and a graduated expansion will allow staff to work closely with each city to manage public response and the financial resources needed for a successful program. EBB will continue to learn from each expansion, integrate lessons-learned, and modify EBB timelines to accommodate localities, as appropriate.

In January 2015, EBB's phase-one expansion will include 22 ZIP Codes in six cities. Registration will open on January 15 and close on February 15. The following areas will be included:

1. Pilot-registered homeowners (from two Oakland ZIP Codes and two Los Angeles ZIP Codes).
2. Additional Oakland and Los Angeles ZIP Codes.
3. City-by-city expansion to San Leandro, San Francisco, Santa Monica, and Pasadena.

NOTE: In promoting and executing the last expansion stage, above, EBB plans to work with organizations that serve populations that are not likely to participate in the "standard" EBB program, which is <u>both</u> bracing and bolting—this program variant would provide only bolting of the house frame to the raised foundation. The number of houses retrofitted each year with this method will be subject, pilot fashion, to a reasonable cap.

To ensure program-eligibility selections are conducted in an appropriate "random" draw, CRMP is seeking to use the expertise of the California Earthquake Authority auditors and the CRMP external auditor, JLK Rosenberger, LLP.

Starting in January 2015, CRMP anticipates completing 500–600 retrofits per year—and 3,000 to 3,600 retrofits over a six-year period, providing (at the current per-retrofit rate) between $9,000,000 and $10,800,000 in incentive payments.

Recommendation: No action required – information only

Governing Board Memorandum

December 17, 2014

Agenda Item 13:	Proposed California Residential Mitigation 2015 Program Funding
Recommended Action:	Approve Proposed California Residential Mitigation 2015 Program Funding

---

Background:

At its December 9, 2010, meeting, the CEA Governing Board approved the CEA's initial funding of the California Residential Mitigation Program (CRMP) in the amount of $500,000 for start-up activities described below. At its May 2013 meeting, the Board approved $1,000,000 to allow CRMP to complete the pilot phase of the Earthquake Brace + Bolt retrofit program and begin its statewide rollout.

Analysis:

The California Residential Mitigation Program is a joint powers authority whose operating entities are the California Governor's Office of Emergency Services (Cal OES) and the CEA. The Governing Board has been briefed periodically on the progress of the CRMP's Earthquake Brace + Bolt ("EBB") program.

The CRMP governing board recently approved an expanded program that aims to complete 750 seismic retrofits by awarding incentive grants of up to $3,000 per house.

- The first phase of the expansion (6 cities in 26 ZIP Codes in both Northern and Southern California, including Napa, the site of a recent moderate but damaging earthquake) appears on target to deliver 500 to 575 retrofits by September 31, 2015.
- The second EBB expansion phase will begin in mid-2015, also offering 500 to 575 incentive payments to homeowners in additional cities and ZIP Codes. These participants will complete their retrofits by February 28, 2016, and CRMP has budgeted for half of those incentive payments to be issued in 2015.

The 2015 budget also includes homeowner marketing (name-list purchase, door hangers, direct mail, email campaign, media outreach, and advertising) for both the phase 1 and the phase 2 expansions. Contractor marketing (name-list purchase, direct mail, email campaign, and follow-up phone calls) for phase 2 is also budgeted for 2015.

After a competitive procurement, CRMP contracted with a call center (SCI Consulting Group, based in Fairfield) to handle inquiries from the public and contractors. The call center's services are presently contracted for January 5, 2015, through November 24, 2015.

The program-expansion budget includes funds to retain a qualified third-party evaluator to examine EBB phase one and services to provide random inspections of a selection of completed retrofits in each city, to verify completion in accordance with the California Existing Building Code.

Attachment A is the CRMP budget for 2015, as formally approved by the CRMP governing board.

The CRMP fund holds $ 257,678 as of September 30, 2014. By agreement with Cal OES, the CEA is still the sole funder of CRMP. In order for CRMP to execute the planned EBB program for 2015, CRMP will need additional CEA mitigation funds in the amount of $ 3 million.

Recommendations:

Staff recommends the Board approve the proposed transfer to CRMP of funds in the amount of $3 million—the funds would be used to expand the CRMP EBB program in 2015, as described.

California Earthquake Authority
2015 Budget
California Residential Mitigation Program

Attachment A

Operating Expenses	
Human Resources:	
Compensation and Benefits	$0
Travel	22,000
Other	0
Board Meeting	5,000
Administration & Office	35,500
IT Administrative Support	65,300
Insurance	75,000
Total Operating Expenses	202,800
Other Expenses	
Audit Services	145,000
Grants (Consumer Incentives)	2,250,000
Legal Services	250,000
Marketing Services	500,000
Promote Earthquake - Mitigation	15,000
Total Budgeted Expenditures	3,362,800

Governing Board Memorandum

December 17, 2014

Agenda Item 14:	Progress Report on the 2014 CEA IT Project Portfolio
Recommended Action:	No action required – information only

Chief Information Officer Todd Coombes will give a progress report to the Board on the 2014 CEA IT Project Portfolio.

CEA Project Portfolio 2014 - Planned Schedules and Cost

December 2014

Legend
Completed
Active/Continued
Planned
HOLD / Deferred
Cancelled

Portfolio #	Project Name	Description	2014 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Estimated External Cost	Actual External Cost
2014-01	Claims Reimbursement	EPICenter capacity testing of Claims													$0	$0
2014-02	2015 Rate Adjustment & New Coverages	Implementation of product/policy changes													$300,000	$0
2014-03	Allstate/Encompass Split	Splitting out Encompass EPICenter data from Allstate													$0	$0
2014-04	User Password Management	Managing users and security across CEA applications													$0	$0
2014-05	New PI CEA Setup	Addition of a new PI in EPICenter and appl. systems													$0	$0
2014-06	CMV - Cooperative Marketing Venture	Comms co-marketing campaign with PIs													$0	$0
2014-07	Premium Calculator	Make premium calculator reusable for CMV, PIs, etc.													$0	$0
2014-08	Public Website	Replacing the current public website													$61,320	$152,211
2014-09	CEA Employee Portal / Internal Website ("Shockwave")	Implementing an Employee Portal / Intranet													$0	$0
2014-10	Marketing Value Program (MVP) 2014	Updates to the Marketing Value Program													$0	$0
2014-11	Customer Relationship Management Tool (CRM)	Implementation of a new CRM tool													$61,320	$38,260
2014-12	Social Media Software/Program	Implementation of a new tool and program													$14,000	$0
2014-13	Concentric Data Warehouse	Implementation of remaining functional areas													$71,200	$84,105
2014-14	CEA Policy Lineage Tracing	Leveraging business intelligence of policy data													$0	$0
2014-15	Convert Legacy Reports to Source from Concentric	Migrating BoB reports to the Concentric platform													$0	$0
2014-16	EPICenter 2.0	Acceptance of all policy data into EPICenter													$273,700	$289,189
2014-17	EPICenter 3.0	Leveraging the Data Warehouse as a service platform													$88,000	$297,331
2014-18	Centralized Policy Processing - Business Case	Investigating reqmts. for CEA to originate policies													$22,400	$82,176
2014-19	CEA Event Walkthrough	End-to-end business walkthrough of a major event													$0	$0
2014-20	Great Plains (POC) / Upgrade	Upgrading CEAs Accounting System													$16,800	$0
2014-21	2013 Internal Audit Closure	Managing the controls and action plans for IT audit													$0	$0
2014-22	Human Resources System Implementation	Implementation of a new HR system													$10,360	$0
2014-23	Policy Tech Implementation	Implementation of Policytech & dept. policies/proc.													$0	$0
2014-24	Enterprise Content Managment System (ECMS)	Implementation of a new document mgmt. tool/proc.													$235,200	$0
2014-25	Mobile Device Management	Implementation of a phone/device tool													$0	$0
2014-26	Disaster Recovery Plan - Rewrite	IT disaster recovery plan and testing													$0	$0
2014-27	Infrastructure Managed Services Implementation	Implement contract for facilities and equipment													$0	$0
2014-28	Project 1 - EPICenter Maintenance Fixes	EPICenter maintenance fixes													$0	$0
2014-29	PMO / IT Governance Tool (Clarizen)	Implement PM and resource management tool													$0	$30,113
2014-30	Learning Management System	Implement continuing education system for agents													$0	$0
2014-31	Reinsurance Management Software Acquisition	Implement management tool for reinsurance partners													$0	$0
2014-32	Plan B (Claims Processing)	Contingency plan for claims reimbursement process													$28,000	$24,180
2014-33	Infrastructure Upgrade	Upgrade hardware/software in Data Center													$170,800	$137,123
2014-34	Marketing Value Program (MVP) 2015	Updates to the Marketing Value Program													$159,880	$238,470
2014-35	CRMP / EBB Hosting Relocation	Relocate CRMP hosting from off-site vendor to CEA-hosting													$0	$0
2014-36	EQ Premium/Coverage Mobile App	Mobile Web App for agents/consumers to generate quotes													$0	$56,576
															$1,512,980	**$1,429,735**

2014 Project Portfolio - Scorecard

December 2014

Schedule	Scope	External Resources	Project Cost	Overall Score	Portfolio #	Project Name	PM	Status	Target Start Date	Start Date	Project % Complete	Target End Date	End Date	Estimated External Cost	Actual External Cost	Original Estimated External Cost
🟡	🟢	n/a	🟢	🟢	2014-01	Claims Reimbursement	Jeremy Pine	Completed	01/24/14	01/24/14	100%	10/06/14	10/24/14			$163,800
🟢	🟢	n/a	🟢	🟢	2014-02	2015 Rate Adjustment & New Coverages	Terri Kletzman	Continued to 2015	09/15/14	09/15/14	5%	05/31/15	05/31/15			$324,800
🟢	🟢	n/a	🟢	🟢	2014-03	Allstate/Encompass Split	Jeremy Pine	Completed	01/24/14	01/24/14	100%	12/26/14	12/26/14			$0
🔴	🟢	n/a	🟢	🟡	2014-04	User Password Management	Charlie Pfeiffer	Completed	02/04/14	02/04/14	100%	04/28/14	07/07/14			$0
🟢	🟢	n/a	🟢	🟢	2014-05	New PI CEA Setup	Charlie Pfeiffer	Continued to 2015	09/04/14	09/04/14	10%	02/01/15	02/01/15			$16,240
🟢	🟢	n/a	🟢	🟢	2014-06	CMV - Cooperative Marketing Venture	Jeremy Pine	Completed	11/18/13	11/18/13	100%	05/05/14	05/05/14			$0
🟡	🟢	n/a	🟢	🟢	2014-07	Premium Calculator	Jeremy Pine	Completed	11/01/13	02/05/14	100%	03/18/14	03/27/14			$0
⚫	🟢	✅	🟢	🔴	2014-08	Public Website	Charlie Pfeiffer	Completed	01/01/14	01/01/14	100%	09/18/14	12/31/14	$152,211	$152,211	$61,320
🟡	🟢	n/a	🟢	🟡	2014-09	CEA Employee Portal / Internal Website ("Shockwave")	Leslie Gazeley	Completed	10/01/13	10/01/13	100%	06/15/14	06/30/14			$73,920
🔴	🟢	n/a	🟢	🟡	2014-10	Marketing Value Program (MVP) 2014	Jeremy Pine	Completed	10/01/13	10/01/13	100%	01/30/14	03/24/14			$0
*	🟢	✅	🟢	🟢	2014-11	Customer Relationship Management Tool (CRM)	Leslie Gazeley	Continued to 2015	07/01/14	07/01/14	5%	12/31/14	12/31/14	$38,260	$38,260	$61,320
*	🟢	n/a	🟢	🟢	2014-12	Social Media Software/Program	TBD	Deferred to 2015	08/25/14	08/25/14	0%	12/31/14	12/31/14			$14,000
🔴	🟢	n/a	🟢	🟡	2014-13	Concentric Data Warehouse	Leslie Gazeley	Completed	10/01/13	10/01/13	100%	09/30/14	11/30/14	$84,105	$84,105	$0
*	*	n/a	*	*	2014-14	CEA Policy Lineage Tracing	n/a	Cancelled	07/01/14	07/01/14	0%	12/31/14	12/31/14			$0
🟢	🟢	n/a	🟢	🟢	2014-15	Convert Legacy Reports to Source from Concentric	Leslie Gazeley	Completed	04/01/14	04/01/14	100%	09/30/14	08/07/14			$0
🟢	🟡	✅	🟡	🟡	2014-16	EPICenter 2.0	Jeremy Pine	Completed	04/01/14	04/01/14	100%	12/31/14	12/31/14	$289,189	$289,189	$273,700
🟢	🟡	✅	🟡	🟡	2014-17	EPICenter 3.0	Jeremy Pine	Completed	06/04/14	06/04/14	100%	12/31/14	12/31/14	$297,331	$297,331	$28,000
🟢	🟢	✅	🟢	🟢	2014-18	Centralized Policy Processing - Business Case	Terri Kletzman	Completed	09/01/14	09/01/14	100%	12/31/14	12/31/14	$82,176	$82,176	$22,400
*	*	n/a	*	*	2014-19	CEA Event Walkthrough	n/a	Cancelled	02/04/14	TBD	0%	12/31/14	TBD			$28,000
🔴	🟢	n/a	🟢	🟡	2014-20	Great Plains (POC) / Upgrade	Charlie Pfeiffer	Completed	11/01/13	11/01/13	100%	09/30/14	11/30/14			$16,800
🟢	🟢	na	🟢	🟢	2014-21	2013 Internal Audit Closure	Jeremy Pine	Completed	11/01/13	11/01/13	100%	03/03/14	03/03/14			$0
*	🟢	n/a	🟢	🟢	2014-22	Human Resources System Implementation	TBD	Deferred to 2015	11/01/13	11/01/13	50%	03/31/14	03/31/15			$10,360
🟢	🟢	n/a	🟢	🟢	2014-23	Policy Tech Implementation	Jeremy Pine	Completed	11/01/13	12/03/13	100%	04/07/14	04/07/14			$12,320
*	🟢	✅	🟢	🟢	2014-24	Enterprise Content Management System (ECMS)	Charlie Pfeiffer	Continued to 2015	05/01/14	08/01/14	5%	12/31/14	12/31/14			$235,200
*	*	n/a	*	*	2014-25	Mobile Device Management	n/a	Cancelled	05/15/14	05/15/14	0%	06/27/14	06/27/14			$0
🟢	🟢	✅	🟢	🟢	2014-26	Disaster Recovery Plan - Rewrite	Dan Deeble	Completed	04/15/14	04/15/14	100%	12/31/14	12/31/14			$0
*	*	n/a	*	*	2014-27	Infrastructure Managed Services Implementation	n/a	Cancelled	11/01/13	11/01/13	35%	07/31/14	07/31/14			$0
🟢	🟢	n/a	🟢	🟢	2014-28	Project 1 - EPICenter Maintenance Fixes	Leslie Gazeley	Completed	11/01/13	11/01/13	100%	01/30/14	01/30/14			$0
🟢	🟢	n/a	🟢	🟢	2014-29	PMO / IT Governance Tool (Clarizen)	Charlie Pfeiffer	Completed	10/01/13	10/01/13	100%	06/05/14	06/01/14	$30,113	$30,113	$0
🟢	🟢	n/a	🟢	🟢	2014-30	Learning Management System	Jeremy Pine	Completed	11/01/13	11/01/13	100%	06/30/14	03/12/14			$0
*	🟢	n/a	🟢	🟢	2014-31	Reinsurance Management Software Acquisition	TBD	Deferred to 2015	04/01/14	04/01/14	0%	07/31/14	12/31/14			$0
⚫	🟢	✅	🟢	🟡	2014-32	Plan B (Claims Processing)	Jeremy Pine	Completed	11/01/13	11/01/13	100%	09/14/14	11/30/14	$24,180	$24,180	$0
🟢	🟢	✅	🟢	🟢	2014-33	Infrastructure Upgrade	Dan Deeble	Completed	09/01/14	09/01/14	100%	12/31/14	12/31/14	$137,123	$137,123	$170,800
🔴	🔴	✅	🟢	🟡	2014-34	Marketing Value Program (MVP) 2015	Charlie Pfeiffer	Continued to 2015	07/17/14	07/17/14	60%	12/31/14	02/09/15	$238,470	$238,470	$0
🟢	🟢	✅	🟢	🟢	2014-35	CRMP / EBB Hosting Relocation	Charlie Pfeiffer	Completed	07/01/14	07/01/14	100%	09/30/14	09/30/14			$0
🟡	🟢	✅	🟢	🟢	2014-36	EQ Premiums & Coverages App (Android/iOS)	Erin Waters	Completed	09/01/14	09/01/14	100%	12/31/14	12/31/14	$56,576	$56,576	$0
														$1,429,735	**$1,429,735**	**$1,512,980**

2014 Project Portfolio - Change Summary

December 2014

Portfolio #	Project Name	Description of Change	Reason
2014-01	Claims Reimbursment	Project completed. Project end date changed from 10/6/2014 to 10/24/2014.	Stakeholder/Sponsor signoff completed on 10/24/2014.
2014-02	2015 Rate Adjustment & New Coverages	Project Manager updated from TBD to Terri Kletzman. Project Status Continued to 2015.	
2014-03	Allstate/Encompass Split	Project completed.	
2014-05	New PI CEA Setup	Project activated. Project Manager updated to Charlie Pfeiffer. Start date updated to 9/4/14. End date updated to 2/1/15. Project Status Continued to 2015.	New PI setup required for Hyundai Marine & Fire with a launch date of 2/1/2015.
2014-08	Public Website	Project completed. Target end date changed from 9/18/2014 to 12/31/2014.	Project schedule rebaselined; Scope of coding work on premium calculator larger than originally anticipated; content creation and approval taking longer than anticipated.
2014-11	Customer Relationship Management Tool (CRM)	Project manager changed from Tom Vargas to Leslie Gazeley. Project status Continued to 2015.	Project deferred to 2015
2014-12	Social Media Software/Program	Project status changed from Planned to Deferred.	Policy development and approval completed in early November; software & implementation discovery is expected to start in early 2015.
2014-13	Concentric Data Warehouse	Project end date changed from 9/30/2014 to 11/30/2014.	Schedule extended due to schedule prioritization against other projects; No original budget set; funds reallocated from other projects.
2014-16	Epicenter 2.0	Project completed.	Project closed with remaining scope, which could be reprioritized and planned in 2015.
2014-17	Epicenter 3.0	Project completed.	Project closed with remaining scope, which could be reprioritized and planned in 2015.
2014-18	Centralized Policy Processing - Business Case	Project completed. Project Manager updated from TBD to Terri Kletzman.	
2014-20	Great Plains (POC) / Upgrade	Project completed. Scheduled end date changed from 9/30/2014 to 11/30/2014.	Implementation and testing efforts took longer than anticipated.
2014-22	Human Resources System Implementation	Project status changed from On Hold to Deferred. PM changed from Jeremy Pine to TBD.	
2014-24	Enterprise Content Management System (ECMS)	Project status Continued to 2015.	Project resources assigned to competing projects in 2014.
2014-26	Disaster Recovery Plan - Rewrite	Project completed. Project Manager changed from Dave Pena to Dan Deeble.	
2014-32	Plan B (Claims Processing)	Project completed. Project Manager changed from Leslie Gazeley to Jeremy Pine.	
2014-33	Infrastructure Upgrade	Project completed. Project Manager changed from Dave Pena to Dan Deeble.	
2014-34	Marketing Value Program (MVP) 2015	Target End Date changed from 12/31/2014 to 2/9/2015. Project Manager changed from Tom Vargas to Charlie Pfeiffer. Project Status Continued to 2015.	Schedule delay due to resource allocation to other higher priority work (Public Website).
2014-35	CRMP / EBB Hosting Relocation	Project added to 2014 project portfolio. Project completed. Project Manager assigned to Charlie Pfeiffer.	
2014-36	EQ Premiums & Coverages App (Android/iOS)	Project added to 2014 project portfolio. Project completed. Project Manager assigned to Erin Waters.	

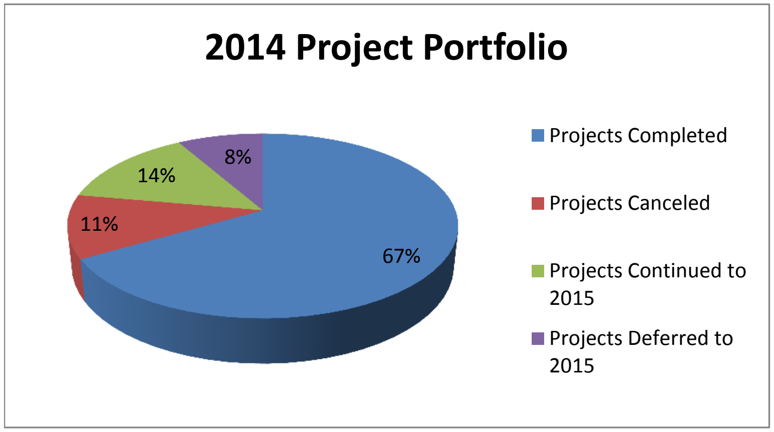
Portfolio #	Project Name	Description
2014-01	Claims Reimbursement	Simulate high-volume claims processing in EPICenter
2014-02	2015 Rate Adjustment & New Coverages	Update EPICenter to reflect new products, coverages and/or pricing models
2014-03	Allstate / Encompass Split	Update EPICenter to show data from Encompass and Allstate as separate and distinct. Currently, Encompass's data is represented by EPICenter as part of Allstate's business.
2014-04	User Password Management	Implement tool to enable our Participating Insurers and our internal business customers to reset the passwords for their EPICenter and Windows accounts. The tool will also proactively alert users of pending expiry of accounts.
2014-05	New PI CEA Setup	Once a new participating insurer is contracted with CEA, the participating insurer will be enabled in EPICenter to send policy and claims submissions to CEA.
2014-06	CMV - Cooperative Marketing Venture	A cooperate marketing campaign between Communications and partnering participating insurers to collect and share data by way of lead-generating websites.
2014-07	Premium Calculator	Create a reusable rate calculator mechanism that can be used by third parties, such as Communication's marketing vendors, to support lead-generating activities.
2014-08	Public Website	Update CEA web site to support maintenance, workflow, and publishing, and maintenance of web content from a collaborative environment.
2014-09	CEA Employee Portal / Internal Website ("Shockwave")	Establish an internal web site to support and promote information exchange, collaboration and organizational communication among CEA staff.
2014-10	Marketing Value Program (MVP) 2014	This project is to implement this year's enhancements to the MVP web software tool. MVP is a free marketing material registration/ sign-up tool for PI agents. PI agents must meet CEA training requirements in order to qualify and receive the free CEA marketing material.
2014-11	Customer Relationship Management Tool (CRM)	Implement a system to enable Communications to manage interactions with current and future participating insurers, agents and customers. This system also tracks and measures campaigns over multiple communication channels, such as email, search, social media, telephone and direct mail.
2014-12	Social Media Software/Program	The original scope of this project was to research and select a software tool that would enable Comms to execute the CEA social media campaign.
2014-13	Concentric Data Warehouse	Continue development of data warehouse platform and develop dashboards to supporting monitoring of key performance indicators relevant to CEA's objectives and/or business processes
2014-14	CEA Policy Lineage Tracing	Create a process to enable the CEA to establish relationships between policies and policyholders across products, insurers and property locations

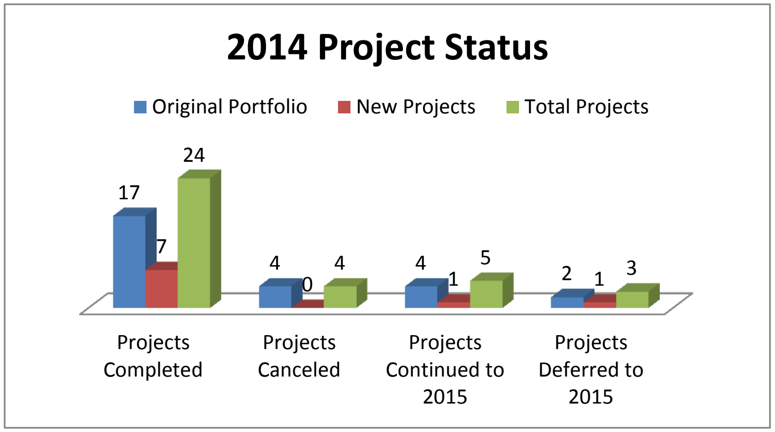
Portfolio #	Project Name	Description
2014-15	Convert legacy reports to source from Concentric	Modify all legacy EPICenter canned reports to pulled data from data warehouse instead of the EPICenter production database in order to support centralize reporting
2014-16	EPICenter 2.0	The EPICenter 2.0 project will work towards further evolving the EPICenter application. The development work will be comprised of; resolving existing EPICenter Application Issues as identified and prioritized by the CEA Operations business unit stakeholders, resolving data discrepancies between CEA data and PI data, developing rules or configuration management, implement error management, and build an information center which PI's can leverage.
2014-17	EPICenter 3.0	The Epicenter 3.0 project will work towards further evolving the Epicenter application. The development of EpiCenter will include business logic and rules logic to accept all transactions and appropriately classify/triage, then identify errors
2014-18	Centralized Policy Processing-Business Case	This project is a first phase of Centralized Policy Processing system implementation. During this phase the business case that describes the need and reasons for this system is developed.
2014-19	CEA Event Walkthrough	A simulated end-to-end major event intended to stress test CEA business processes and technical systems including event initiation, inner organization communication, impact reporting, external communication, claims processing and reimbursement, post event assessment, etc.
2014-20	Great Plains (POC) / Upgrade	This project includes the vendor selection, and the implementation of hosted version of Great Plains.
2014-21	2013 Internal Audit Closure	This project's objective was to manage task and people though series of testing, reviews and scoring activities related to internal audit of IT General Controls (ITGC).
2014-22	Human Resources System Implementation	This project is to coordinate activities around selection and implementation of CEA HR system. The HR system will serve as a multifunctional HR software tool supporting activities such as onboarding, off boarding, benefits management, and performance reviews among others.
2014-23	Policy Tech Implementation	This project includes the Implementation of CEA policies and procedures management software tool. It will serve CEA as a centralized database for all CEA policies and procures.
2014-24	Enterprise Content Managment System (ECMS)	This project is to coordinate selection and implementation of CEA's ECM software tool. This tool will allow us to successfully classify and manage CEA records, amongst other benefits.
2014-25	Mobile Device Management	Identify and implement a management program for all types of mobile devices, including but not limited to mobile phones, smartphones and tablet computers for company-owned and employee-owned devices across the CEA enterprise. This program is intended to increase security for both the devices and the enterprise they connect to.
2014-26	Disaster Recovery Plan - Rewrite	This project includes the review and updates to the existing Disaster Recovery Plan. Disaster Recovery Plan defines the critical IT systems, and the recovery processes related to a local disaster / catastrophe.
2014-27	Infrastructure Managed Services Implementation	This project includes vendor selection process, and implementation of outsourced infrastructure services, and hardware, for CEA IT.

Portfolio #	Project Name	Description
2014-28	Project 1 - EPICenter Maintenance Fixes	This project incorporated deployment of EPICenter software fixes necessary for CEA to proceed with Claims Stress Test activities, as part of Claims Reimbursement Project.
2014-29	PMO / IT Governance Tool (Clarizen)	This project includes the implementation of the project management software tool, as well as management of CEA Helpdesk and other IT work request tickets.
2014-30	Learning Management System (LMS)	This project includes the selection and implementation of training software tool to be leveraged for Comms, OPS and IT training activities.
2014-31	Reinsurance Management Software Acquisition	This project includes the providing consulting services to Finance for vendor selection and implementation of reinsurance management tool that will enable Finance team to proactively manage and track the reinsurance activities.
2014-32	Plan B (Claims Processing)	Establish a non-technical solution to access claim submissions data and alternatively manage the claim life cycle in the event that EPICenter is unavailable.
2014-33	Infrastructure Upgrade	Upgrades to (1) Data Center (including a secondary site for disaster recovery), (2) Hardware/Software, (3) Connectivity, (4) Support (*this project replaces 2014-27 Infrastructure Managed Services project)
2014-34	Marketing Value Program (MVP) 2015	This project is to implement next year's enhancements to the MVP web software tool. MVP is a free marketing material registration/ sign-up tool for PI agents. PI agents must meet CEA training requirements in order to qualify and receive the free CEA marketing material.
2014-35	CRMP / EBB Hosting Relocation	Relocate the hosting of the Earthquake Brace and Bolt website from being hosted by a 3rd party to being hosted by CEA
2014-36	EQ Premium/Coverage Mobile App	Develop a Mobile Web Application that will allow users to generate premium quotes for all CEA coverage types and all coverage options from their mobile devices.

2014 Project Portfolio - Summary Analysis

December 2014





Completed Projects (24)	
2014-01	Claims Reimbursement
2014-03	Allstate/Encompass Split
2014-04	User Password Management
2014-06	CMV - Cooperative Marketing Venture
2014-07	Premium Calculator
2014-08	Public Website
2014-09	CEA Employee Portal / Internal Website ("Shockwave")
2014-10	Marketing Value Program (MVP) 2014
2014-13	Concentric Data Warehouse
2014-15	Convert Legacy Reports to Source from Concentric
2014-16	EPICenter 2.0
2014-17	EPICenter 3.0
2014-18	Centralized Policy Processing - Business Case
2014-20	Great Plains (POC) / Upgrade
2014-21	2013 Internal Audit Closure
2014-23	Policy Tech Implementation
2014-26	Disaster Recovery Plan - Rewrite
2014-28 (New)	Project 1 - EPICenter Maintenance Fixes
2014-29 (New)	PMO / IT Governance Tool (Clarizen)
2014-30 (New)	Learning Management System
2014-32 (New)	Plan B (Claims Processing)
2014-33 (New)	Infrastructure Upgrade
2014-35 (New)	CRMP / EBB Hosting Relocation
2014-36 (New)	EQ Premiums & Coverages App (Android/iOS)

Cancelled Projects (4)	
2014-14	CEA Policy Lineage Tracing
2014-19	CEA Event Walkthrough
2014-25	Mobile Device Management
2014-27	Infrastructure Managed Services Implementation

Continued to 2015 (5)	
2014-02	2015 Rate Adjustment & New Coverages
2014-05	New PI CEA Setup
2014-11	Customer Relationship Management Tool (CRM)
2014-24	Enterprise Content Management System (ECMS)
2014-34 (New)	Marketing Value Program (MVP) 2015

Deferred to 2015 (3)	
2014-12	Social Media Software/Program
2014-22	Human Resources System Implementation
2014-31 (New)	Reinsurance Management Software Acquisition

Governing Board Memorandum

December 17, 2014

Agenda Item 15: 2015 CEA IT Initiatives and Project Portfolio

Recommended Action: Approve funding of the 2015 CEA IT Initiatives and Project Portfolio, in a combined amount not to exceed $877,000

Background:

The CEA Project Management Office (PMO) met with CEA departments and identified 17 technology-related projects to include in the proposed 2015 IT Project Portfolio. The projects selected included those with the highest priority for each of the CEA departments, taking into account the projected internal and external IT capacity available in 2015.

Initial labor estimates and corresponding resource and delivery schedules were prepared by the PMO for each of the 17 Portfolio projects. The majority of CEA IT internal-development capacity will be used to support existing CEA systems, but some internal capacity will be dedicated to the 2015 IT Project Portfolio. In order to accomplish all of the work associated with the 17 Portfolio projects, the PMO determined that additional IT development labor will need to be provided by external contractors. The estimated 2015 Portfolio expense for external contract labor is $877,000.

Analysis:

Project Number	Project Name	CEA Function	External Cost
2015-01	CEA Policy Review and Implementation in PolicyTech	Compliance	
2015-02	Compliance Hotline	Compliance	$ 77,980.00
2015-03	Enterprise Content Management System (ECMS)	Compliance	$ 121,380.00
2015-04	HR Software Implementation	HR	$ 50,960.00
2015-05	Virtual Desktop Infrastructure (VDI) Implementation	IT	
2015-06	Litigation Management System	Legal Services	$ 52,920.00
2015-07	Outside Counsel Management System	Legal Services	$ 45,500.00
2015-08	Develop Agent Interface for Rate Calculator	Marketing	$ 140,000.00
2015-09	Customer Relationship Management (CRM) System	Marketing	$ 22,580.00
2015-10	Fault Flyover Map Development	Marketing	$ 35,000.00
2015-11	Migrate CEA Externally Hosted Websites to Internal	Marketing	$ 15,260.00
2015-12	MVP 2015/2016	Marketing	$ 170,240.00
2015-13	Social Media Software Implemetation	Marketing	$ 19,600.00
2015-14	2016 Rate and Form Change	Operations	$ 112,000.00
2015-15	New Participating Insurer Setup	Operations	
2015-16	Zip Code Management Solution	Operations	
2015-17	Reinsurance Management System	Reinsurance	$ 13,580.00
			$ 877,000.00

- Work estimates for each of the 17 Portfolio projects were established based on scope and effort projections for each internal and external resource included in the development process.
- Initial planned schedules were created based on a combination of business needs and resource availability and fit, including both IT resources and business subject matter experts.
- For budgeting and approval purposes, 2015 external cost estimates were based on planned external contractor hours and projected market rates.
- Some 2015 Portfolio projects continue projects from 2014. Any 2015 projects that continue into 2016 will become a part of the 2016 IT Project Portfolio.

In order to successfully complete the 2015 IT Project Portfolio as planned, external contract labor will be required. To the extent Board approval for the 2015 Portfolio expense for external contract labor is not granted, then the PMO will work with CEA leadership and staff to reduce and reprioritize the Portfolio to fit within the CEA's available internal capacity.

Recommendation:

Approve funding for external contract labor for the 2015 CEA IT Initiatives and Project Portfolio, in accordance with the 2015 budget, in an amount not to exceed $877,000.

Governing Board Memorandum

December 17, 2014	
Agenda Item 16:	Progress Report on the Upgrade to CEA's IT Infrastructure
Recommended Action:	No action required – information only

Chief Information Officer Todd Coombes will update the Board on progress made to date in security and reliability upgrades to the CEA's IT infrastructure.

Governing Board Memorandum

December 17, 2014

Agenda Item 17: Concept for centralizing the processing of CEA policies

Recommended Action: No action required – information only

Chief Information Officer Todd Coombes will present to the Board a concept for centralizing CEA insurance-policy processing.

Governing Board Memorandum

December 17, 2014

Agenda Item 18:	CEA staff will conduct a Request for Qualifications and Proposals (RFQ/P) for research on the performance effects of cripple-wall and sill-anchorage retrofits
Recommended Action:	No action required: Information Only

Background:

Almost 25 years ago, a study performed for the California Department of Insurance concluded that "the most significant contributor to major earthquake losses is the lack of foundation bracing and anchorage."[1]

CEA insurance and mitigation staff have concluded that if the same research were performed today, that basic finding would likely be identical.

The construction-type studied was raised-foundation with a cripple wall—some 18% of all California's buildings were built before 1940 when this construction type predominated for homes.[2] Some estimate that fewer than five percent of all existing buildings in California have been retrofitted.[3]

But today there is opportunity for the California Earthquake Authority to bring those scientific and engineering conclusions within research and assistance programs designed to identify, assess, and address these very basic structural vulnerabilities.

In order to work with the findings within a property-insurance context, however, there must be research that produces reliable, scientifically based quantification of the cost saved by performing basic retrofits of these buildings. The CEA's Research Department and Mitigation Department are working together to produce that very effort, as follows.

The CEA's premium discount for policyholders who retrofit these types of houses is set by law at a minimum of 5%, but absent sufficient research, that minimum has also been the de facto discount ceiling since the CEA opened its doors in 1996. The CEA's new, proposed rate filing (see Agenda item 10) suggests an increased mitigation discount for qualifying retrofitted dwellings—up to 20%, based on loss data from the Loma Prieta and Northridge earthquakes, supplemented with engineering models and studies.

1 *Mitigation of Principal Earthquake Hazards to Wood Frame Dwellings and Mobilehomes*, 1990, R.P. Gallagher Associates, Inc., p. ii.
2 *California Multi-Hazard Mitigation Plan*, 2013, Cal OES, p. 146 (actual retrofits not determined).
3 *Supra*.

But most experts would agree that further study is clearly warranted. This RFQ/P will lead to commissioning the research to quantify the damage-reduction from these retrofits—the result will be directly relevant data, which when incorporated into the CEA's rates would benefit both policyholders and the CEA.

While the immediate research goal will be houses on a raised foundation that have a cripple wall, future research could build on that effort, to expand to other building types such as homes with a "soft story" (e.g., room over garage).

This work will be coordinated with the CEA's other mitigation research project, ATC 110, which is an ongoing CEA collaboration with FEMA and the Applied Technology Council.

Analysis:

The CEA's RFQ/P (Attachment A) will be the first systematic, combined scientific and engineering study that specifically attempts to quantify the performance effects (dollar reduction in damage and loss) resulting from a cripple-wall and sill-anchorage retrofits of homeowner dwellings.

The RFQ/P will result in hiring a multidisciplinary team—including qualified engineers, earth scientists, construction-cost estimators, and modelers—to manage and perform the work, with overall supervision by the CEA research director and chief mitigation officer.

The multidisciplinary team will:

1. Review past research (including past and present CEA-contracted research);
2. define representative ("index") buildings for testing;
3. select representative ground-motion records for test buildings;
4. perform laboratory tests on building components and sections;
5. perform numerical modeling on the buildings and their components; and
6. develop fragility-modification functions for use by loss modelers.

Future research could expand to placing index buildings, un-retrofitted and retrofitted, on a shake table to subject them to representative earthquake shaking.

In addition, staff expects this research also to lead the way for future projects that look at other features of a house that could benefit from retrofits and then quantify the savings for CEA-insurance purposes.

Recommendation:

No action required—information only.

(It is anticipated that this will be a multi-year research project. CEA staff will come to the Board at a future meeting or meetings for review and approval of proposed contracts and related funding.)

Request for Qualifications and Proposals

Quantifying the Performance of Retrofit of Cripple Walls and Sill Anchorage in Single Family Wood-frame Buildings

(Development of Fragility Function Modification Factors)

RFQ&P #08-14
Date: January 5, 2015

California Earthquake Authority

Request for Qualifications and Proposals (RFQ&P #08-14):

Quantifying the Performance of Retrofit on Cripple Walls and Sill Anchorage in Single-Family, Wood-frame Buildings

(Development of Fragility-Function Modification Factors)

Table of Contents

I. CEA BACKGROUND 3
II. DESCRIPTION OF CONTRACTOR SERVICES 4
III. CEA GOALS 5
IV. CURRENT CEA RESEARCH STATUS 5
V. PROGRAM BACKGROUND 8
VI. SCOPE OF WORK 8
VII. ESTIMATED COST OF SERVICES 21
VIII. MINIMUM PROPOSER QUALIFICATIONS 21
IX. REQUIRED SUBMITTAL FORMAT 21
X. SCHEDULE OF KEY DATES 23
XI. QUESTIONS AND RESPONSES; ERRORS AND OMISSIONS; ADDENDA 24
XII. CONFIDENTIAL INFORMATION 25
XIII. SUBMITTAL DELIVERY 25
XIV. EVALUATION CRITERIA AND SCORING OF SUBMITTALS 26
XV. TERMS AND CONDITIONS 27
ATTACHMENT E: DRUG-FREE WORKPLACE CERTIFICATION 44

I. CEA Background

The California Earthquake Authority (CEA) is a publicly managed, privately funded, not-for-profit organization whose mission is to provide residential earthquake insurance and encourage Californians to reduce their risk of earthquake damage and loss through effective risk education, damage mitigation, and insurance protection.

In the event Californians suffer earthquake damage to their home or property, CEA provides its policyholders with insurance coverage. CEA has more than $10 billion in claim-paying capacity, consisting of its own capital, reinsurance and other risk-transfer contracts, revenue bonds, and assessments on its participating insurance companies (PI).

CEA policies are sold and serviced exclusively through CEA's 19 PIs. Policyholders can purchase CEA coverage only through the insurance company that provides their residential property insurance policy and only if that company is a CEA PI. A list of participating insurers is available at www.EarthquakeAuthority.com.

How the CEA Was Formed

Following the unprecedented losses from the 1994 Northridge earthquake, many insurance companies restricted the sale of new homeowner insurance policies in California. In response, the California Legislature created the California Earthquake Authority (CEA), a privately funded, publicly managed entity that provides earthquake coverage for residential property in California. CEA began writing earthquake policies on December 1, 1996.

CEA earthquake insurance policies are offered and serviced by its 19 PIs; these companies are responsible for policy sales and service, and in the event of a damaging earthquake, claim adjustment and claim payment from (or reimbursed by) available CEA funds.

Overseeing the CEA is a Governing Board composed of the Governor, Treasurer, and Insurance Commissioner. The Speaker of the Assembly and President Pro-Tempore of the Senate serve as non-voting members. An 11-member Advisory Panel—consisting of insurance industry representatives, insurance agents, and members of the public not connected to the insurance industry, including a consumer representative—advises the Governing Board. The Insurance Commissioner is an *ex officio* member of the Panel.

More background information is available at www.EarthquakeAuthority.com.

What We Offer

Most residential insurance policies do not cover earthquake damage—a separate policy is required. Without earthquake insurance to help Californians cover the costs of repairs and other expenses that come with catastrophic damage, they will pay out of their own pocket to fix or rebuild their home, to replace their personal property, and to live and eat elsewhere.

CEA's standard Homeowners Policy offers basic residential earthquake coverage, which includes coverage for the dwelling; personal property coverage; and additional living expense/loss-of-use coverage, if a policyholder is forced from their home due to earthquake.

- The CEA also offers policies to condominium unit owners and renters.
- In July 2012, a Homeowners Choice policy was introduced offering policyholders additional coverage options to create the right policy to fit their needs.

The Governing Board, subject to the approval of the Insurance Commissioner, establishes premium rates. By statute, the CEA's rates must be actuarially sound and based on the best earth and engineering science available. Over the years but within these statutory criteria, CEA has reduced rates significantly.

II. Description of Contractor Services

The CEA seeks to establish a contract with one qualifying organization ("the Contractor") to develop fragility-function-modification factors for use by loss modelers in evaluating raised-foundation homes that have a cripple-wall and sill-anchorage retrofit.

The Contractor will work under the direction of, and in consultation with, CEA management.

The amount, scope, and timing of work to be performed under the Agreement is at the sole discretion of the CEA; there is no guarantee of work if a contract is awarded.

The tasks in this research project are closely interconnected, and the integration of information and data from different tasks is essential to this research, throughout the course of the project.

For this reason, the CEA prefers research proposals from "Project Teams" that present the combined expertise and qualifications to perform the technical-research tasks and the clear ability to manage and control the project through its successful completion. Qualified individuals interested in contributing to this research are encouraged to assemble or join project teams, develop preliminary project plans, and submit proposals to the CEA, naming a specific Project Manager (PM) or Principal Investigator (PI).

A sample preliminary chart, indicating the breakdown and structure of the project, is shown below. The structure shown is flexible, to a certain extent, and the organization into Working Groups (WGs) (and the functions of individual WGs) can be determined by the proposers, with justification.

III. CEA Goals

To fulfill its mission, the CEA has identified the following strategic goals:

1. Provide financial support for scientific research, which will assist the CEA's efforts to encourage Californians to strengthen their homes and reduce their risk of catastrophic earthquake damage.
2. Develop objective, standardized methods for seismic retrofit of vulnerable single-family wood-frame residential buildings and quantify the economic benefit achieved by such retrofits.

Accordingly, the goal of this RFQ&P encompasses:

1. Identifying and developing information and data within the relevant framework of the California Insurance Code, to determine the premium discounts commensurate with the extent of retrofit performed by the policyholder, ultimately to ensure the actuarial soundness of the premiums the CEA requires.
2. The goal of this RFQ&P is a scientifically-based determination of structural-damage fragility-modification functions that reflect the benefit (i.e., reduction in building/damage ratio) of cripple-wall and sill-anchorage retrofit as a function of shaking intensity. Key aspects of the project are discussed under VI. Scope of Work.
3. Future work may address performance of a wider range of wood-frame building types, e.g., soft-story construction and foundations on slopes. Furthermore, large-scale (shake-table) testing of model and full-size buildings might also be a related, future project.

IV. Current CEA Research Status

There is little information on seismic vulnerability of wood-frame residential buildings (specifically, California-type buildings), in part due to lack of adequate data from past earthquakes. Information on the seismic performance of retrofitted *vs* non-retrofitted cripple walls is virtually non-existent. The data from relatively recent damaging earthquakes in California, primarily 1989 Loma Prieta and 1994 Northridge, constitute the bulk of such information.

Consequently, earthquake loss-estimation models, such as the FEMA's HAZUS and commercial models, rely on these data, supplemented with engineering models and studies to develop fragility functions.

The current CEA rate structure affords a 5% discount for single-family, wood-frame houses built before 1979 on a raised foundation with braced cripple walls, a bolted foundation, and a secured water heater. This discount has remained unchanged since the CEA's inception in 1996.

After a December 2014 filing, the CEA proposes to expand this discount to as much as 20% based on currently available data. That expanded discount, subject to approval by the Governing Board and the California Insurance Commissioner, would take effect in 2016. The results of this RFQ&P are intended to provide additional data and a framework to adjust *future* (post-2016) CEA rating structures.

Available data for California and information on similar buildings from other regions is of value to the CEA, for developing criteria and guidelines for seismic retrofit of vulnerable buildings.

For context, and to objectively define the scope of this RFQ&P, a brief review of the scopes and the findings (or expected outcomes) of three other projects is provided below. These projects are:

1. **CUREE-Caltech Wood-frame Project**. Initiated in late 1998, and motivated by substantial damage to wood-frame residential buildings from the 1994 Northridge earthquake, this project sought improved understanding of the seismic behavior of wood-frame buildings to develop reliable, economical ways to improve earthquake performance of wood-frame construction. FEMA and others funded the Project, which was administered by Cal OES and contracted to Caltech, with subcontracts to CUREE member organizations. The project had five elements (with numerous tasks and sub-tasks within each element):

   Element 1: Testing and Analysis Program
   Element 2: Northridge Earthquake Field Investigations
   Element 3: Recommendations for Codes, Standards, and Guidelines
   Element 4: Building-Specific Seismic Vulnerability and Loss Estimation
   Element 5: Education and Outreach

   Originally planned for three years, the project was completed in roughly five years, and the findings were published in nearly 30 research reports. The knowledge gained, the methodologies developed, and the recommendations made in this project have been used in many aspects of earthquake-hazard mitigation of wood-frame construction.

   The scope of the CUREE-Caltech project was much wider than the scope of this RFQ&P, and the findings of the CUREE-Caltech Wood-frame project are neither sufficiently specific nor specifically current for the CEA's purposes. But they serve as a starting point for this RFQ&P. Reference to different CUREE-Caltech research reports will be made throughout this document.

2. **CEA Insurance Premium Incentive Study**: "**Evaluating Premium Incentives for the California Earthquake Authority - March 2006.**" This study assessed the performance of retrofitted versus average housing conditions by selecting some index buildings and computing the expected earthquake-induced annualized losses to retrofitted and un-retrofitted (index) buildings. It considered three foundations types: slab-on-grade, stucco-sheathed cripple walls, and braced stucco-sheathed cripple walls.

A formal and in-depth review of the report—with emphasis on evaluating the report's general approach and whether (and how) it could be improved to be used in conjunction with work sought through this RFQ&P—should be included within the scope of work of all responses to this RFQ&P, accompanied by some helpful discussion.

3. **ATC-110:** "**Development of a Prestandard for the Evaluation and Retrofit of One- and Two-Family Light Frame Residential Buildings**" is a joint effort of the CEA and FEMA initiated earlier this year, which is presently in the stage of project-scoping and planning. For reference, the notes of the ATC-110 Steering Committee Meeting (of June 17, 2014) and the rough draft of a "Pre-Standard Development Plan" (September 29, 2014) are included in Appendix A and Appendix B, respectively.

   ATC-110 studies the seismic performance of light-weight wood-frame buildings, with the goal of developing a prestandard for their seismic evaluation and retrofits. The approach taken in ATC-110 relies mainly on existing literature, analytical modeling using existing (and not-quite-developed) software, and expert judgment.

   But although the planned investigative efforts in ATC-110 are not scientifically in-depth, there are commonalities between the activities planned for ATC-110 and the anticipated scope of work of this RFQ&P. This highlights the need to make provisions and devise mechanisms (both from the technical-contents and project-management perspective) to ensure crucial interaction and communication between the two projects. To optimize resources and maximize knowledge gained, there must be project-to-project interaction and communication among all projects on this subject of earthquake science & engineering within the CEA in general, and between ATC-110 and this RFQ&P in particular.

   Having noted similar activities in ATC-110 and this RFQ&P, there are also differences:

   - The ATC-110 retrofit process, as noted in the Steering Committee minutes (Appendix A), is "vulnerability-based" rather than "engineered," and it is without much flexibility to adopt variations of the prescribed method. Consequently, it will likely be simplified and conservative.
   - In particular, ATC-110 does not address issues of "performance levels" pre- or post-retrofit. It aims at retrofitting for individual and specific vulnerability without in-depth investigation of the impact of the prescribed retrofit on the overall performance of the building; that is, it does not (adequately) investigate the concept of changes in "load paths" due to retrofits.
   - In light of this, the recommendations for seismic retrofit of lightweight wood-frame buildings, from ATC-110 and this RFQ&P, must be reconciled and coordinated. This fundamental issue must be investigated, and the implications must be discussed, in the work arising from this RFQ&P.

V. Program Background

Section 10089.40 of the California Insurance Code specifies the law the CEA must follow in determining its residential earthquake insurance rates.

Subsection (c) of section 10089.40 describes the minimum requirement for a dwelling to qualify for a five % (or higher) premium discount. It states:

> *"Policyholders who have retrofitted their homes to withstand earthquake shake damage according to standards and to the extent set by the board shall enjoy a premium discount or credit of 5 percent on the authority-issued policy of residential earthquake coverage. For residential dwellings, the 5-percent discount shall be applicable if the dwelling, at a minimum, meets the following requirements: the dwelling was built prior to 1979, is tied to the foundation, has cripple walls braced with plywood or its equivalent, and the water heater is secured to the building frame.… The* [CEA Governing] *board may approve a premium discount or credit above 5 percent, as long as the discount or credit is determined actuarially sound by the authority.*"

VI. Scope of Work

This RFQ&P focuses on the study of earthquake-response of wood-frame residential buildings encompassing a wide range of research topics. This research will be performed in multiple phases, over multiple years, as described below.

This RFQ&P seeks a scientifically-based determination of structural-damage fragility-modification functions that reflect the benefit (i.e., the reduction in the building/damage ratio) of cripple-wall and sill-anchorage retrofit as a function of shaking intensity. Key tasks of the project include:

<u>Task 1</u>: Literature Review

A comprehensive literature review should identify all relevant past research in the area of seismic performance assessment of lightweight wood-frame structures, including laboratory testing and numerical modeling. (See Section IV, Current CEA Research Status.)

<u>Task 2:</u> Analyzing Building Inventory and Defining Representative "Index Buildings"

This RFQ&P focuses on single-family wood-frame houses on raised foundations, specifically cripple walls on concrete stem-walls. Therefore, "Index Buildings" for this research should be variants of this building type. An obvious factor for selecting or defining Index Building is "construction quality" (or "year of construction"). In general, secondary characteristics should be considered in defining Index Buildings. Specifically, Index Buildings should represent a significant population of the buildings in the existing CEA portfolio and California residential construction. Therefore, the first step in defining Index Buildings for this study should be examining the category of light wood-frames on raised foundations in California's building stock.

The study of the CEA insured-structure portfolio has two goals:

1. identify those features that make the subject buildings of this RFQ&P (small wood-frames on raised foundations) seismically vulnerable; and
2. examine the statistical significance of the identified features.

ATC-110 has reportedly identified the seismic vulnerabilities of wood-frames on raised foundations. What the ATC has adopted may be examined and used in defining the Index Buildings.

Presently very few building characteristics are included as "rating factors" in the CEA's insurance-premium-rate structure. By contrast, commercial loss modelers typically apply dozens of "secondary characteristics," with perhaps a handful of those applicable to small wood-frame buildings. The impacts of some of the secondary characteristics on the estimated losses can be significant.

Using the building characteristics that are reported by CEA's homeowners in their earthquake-insurance-policy applications (type and age of construction, number of stories, foundation-type, roofing material, and chimney), this RFQ&P will identify the most significant characteristics and consider them as variables (or parameters or factors), which can or will be used to define variants of Index Buildings.

- Each index building could have different versions, called "variants," reflecting, e.g., different construction quality, retrofit measures, and designs (or any other significant factor identified in the planned research).[1]
- To qualify as a variant for defining Index Buildings, two conditions should be met: (1) the parameter should have a significant effect on the seismic response of the building and (2) the parameter should have a statistically significant presence in in the California building stock. This will determine the potential benefits as "rating factors" for rate calculations.

Some knowledge of the relative importance of different secondary characteristics is necessary for defining representative Index Buildings for numerical modeling and future experimental shake-table testing.

Index Buildings for this RFQ&P should include an adequate number and variety of single-family wood-frame buildings, to accurately reflect the spectrum of wood-frame buildings in the California building stock and the CEA portfolio. Variations could be based on one or more of the features of single-family residential buildings in the California building stock and the CEA portfolio, especially in areas of high ground-motion hazard.

[1] An example of three variants of each Index Building used in CUREE-woodframe project is: (i) Superior Quality, (ii) Typical Quality, and (iii) Poor Quality.

Variations in "Indexing Parameters" such as plan view and wall geometry, and features such as open areas, roofing style, cripple-wall height (e.g., 2' and 4'), exterior siding, and interior finish materials, would result in too many Index Buildings. It is essential to identify the most significant Indexing Parameters, from the ones listed above or any other (e.g., loss modelers' secondary modifiers), to limit the Index Buildings to a justified and manageable few.

Data needed to define the Index Buildings for further study should not be exclusively restricted to the CEA portfolio. Other California building databases could be used to better define building characteristics that are significant for dynamic response analysis and seismic retrofit—in particular, building category W1 in the HAZUS database could be studied for this purpose.

Task 3: Selecting Representative Ground-Motion Records and Developing Loading Protocol

The primary objectives of this task are:

- Adopting a scheme to select and scale ground motions and produce a database of "ordinary" and "near-source" ground-motion records for time-history analysis and for experimental shake-table testing; and
- Identifying appropriate types of laboratory tests for lightweight wood-frame buildings (components, sections, and full-size).

Task 3.1: Selecting and Scaling Ground Motion Records:

The suite of records for analytical and experimental studies should reflect important earthquake and ground-motion characteristics, such as source-rupture effects, local soil conditions, and basin effects, where applicable. Numerical modeling and shake-table testing of building components and building sections and of full-scale buildings, to develop fragility functions and retrofit schemes, should incorporate these carefully selected and scaled representative records and should rely on appropriate loading protocols.

An adequate quantity and quality of ground-motion records (near-fault and regular, representative of California earthquakes and reflecting the site, path, and site effects, properly scaled considering any relevant factor), should be used for nonlinear time-history analysis and in developing loading protocols.

Selecting and scaling ground motions to adequately characterize the ground-motion hazard at a particular site is a challenging but essential task. There have been an abundance of ground motion records, including near-source, since the completion of the CUREE-Caltech project. The NGA-West2 project database, in particular, has records from, or representative of, earthquakes in California. The NGA-West2 database can serve as a rich source for selection of records, "ordinary" and "near-source," for dynamic analysis of non-retrofitted and retrofitted buildings.

In addition to that database's large size, large number of parameters and attributes, and level of detail, NGA-West2 presents new information that was lacking in the previous databases and even in the literature, for use in this Task. (Note: Since "multiple-performance" retrofit is not within this project's scope of work, selecting and scaling ground motions does not need to go beyond the needs of this Phase-I project.)

Task 3.2: Adopting Loading Protocol:

Which laboratory tests, developed and used for purposes similar to those of this RFQ&P, are representative for this RFQ&P and why? The responding proposals should identify the current state of the art for loading protocols (e.g., the work done to develop these under the CUREE-Caltech Wood-frame Project).

Assuming the current state of the art is sufficient for the purposes of this RFQ&P, the responding proposals should identify the state of the art and support this conclusion. If this is satisfactory, there is no need to develop new loading protocols. But if the responding proposal determines the current state of the art is insufficient, the proposal should explain why and what the responder would propose to develop the proper protocols. The following is offered as background if the responder feels new loading protocols are necessary:

Performance of some building components may be sensitive to the relative motion (e.g., relative displacement of successive floors), while others may be more sensitive to the dynamic effects of the motion. For the CEA's purposes, to reliably model and predict structural, non-structural, and contents behavior during an earthquake, factors such as acceleration- and displacement-sensitive responses, quasi-static, and cyclic are all important. All experimental testing and analytical modeling for this research project should be based on representative tests and loads.

The uncertainty in estimating future seismic performance of wood-frame buildings may be largely attributed to the use of laboratory testing results, and especially the laboratory loadings, which may not be representative of real buildings in real earthquakes. There are multiple published studies in the literature about seismic design and retrofit of wood-frame buildings that address the significance and the role of testing, i.e., sample characteristics, loading patterns, and testing procedures. As an example, a predominant test in past investigations of seismic resistance of wood-frame buildings has been tests of shear walls. This includes testing of walls of different size, geometry, detailing, testing of the anchorage to the foundations, rate of loading effect, and cyclic loading effect.

Designs of shear walls are mostly based on monotonic tests of 8'x8' samples (the ASTM test). In the construction of small residential wood-frame buildings, shear-wall sizes vary; furthermore, the loadings in real earthquakes are seldom the same as, or adequately resemble, earthquake loading.

Another example for the source of uncertainty of building-response prediction is the role of the degree of anchorage of walls to foundations. Laboratory tests have indicated that failure modes of fully anchored walls are quite different from those of partially anchored ones. Partially anchored walls often fail in the sheathing-to-sill-plate nail connections and in the sill plate.

Several factors determine the choice of force or displacement history to be used for component testing, controlled-displacement or controlled-force, monotonic or cyclic, near-fault or regular, and rate of loading (quasi-static or dynamic).

- As has been researched and reported in the literature, cyclic load protocols with different numbers of load cycles have different effects on fatigue properties of elements in wood frames, especially connections (nails) and the stiffness of sections and the system.
- Monotonic testing of fully anchored walls has been reported to result in noticeably higher ductility than cyclic testing.
- Sensitivity of response to testing and loading details has implications for performance assessment and retrofit design and evaluation.

Therefore, if the responder deems it necessary, review of existing test standards/loading protocols, to define and develop protocols applicable to lightweight wood-frame buildings representative of CEA portfolio, would be considered an important task.

In developing a protocol (assuming existing protocols are insufficiently state-of-the-art), e.g., in identifying appropriate laboratory tests—quasi-static, cyclic, and dynamic—and in selecting and scaling ground-motion records for representative loading, the seismic demands of the system and hence the desired performance levels play a major role. Therefore, the testing criteria and loadings should be consistent with the adopted performance expectation.

Testing protocols, which have been devised and developed for seismic investigation of certain classes of wood-frame buildings with their own dynamic characteristics, performance criteria, hazard-level, and with consideration of different code-level design events, may not be applicable to "single-family wood-frames on raised foundation," the subject of this RFQ&P. For this reason:

- The test plan for the RFQ&P should specify the types and details of the tests and procedures and provisions to be followed.
- The first step in Task 4 should then be to review the information on the subject of testing protocol for wood-frames, as reported in the literature (for example, ASTM, CUREE-Caltech Wood-frame, and FEMA 461) and decide whether they are sufficient for the purposes of this RFQ&P.
- If the responder feels they are not sufficient, the next step, starting with the expected performance and the demand imposed by representative seismic events, is to identify protocols for quasi-static, cyclic, and dynamic testing (e.g., for displacement-sensitive and force-sensitive) of structural and nonstructural elements.

Task 4: Experimental Testing

Component testing is an essential part of seismic-response investigation and analysis for wood-frame buildings.

Depending on the specific goals, testing on different scales—ranging from single components subjected to different loading conditions, to building subsections composed of multiple connected elements (e.g., shear walls and diaphragms), to small-sized model buildings, and finally, full-sized buildings—are all required to develop the necessary information and data on the dynamic characteristics of such buildings.

Due to the complexities and variability in the material properties (e.g., strength and stiffness), connection details, geometry (e.g., irregular plan layout and side openings), and loading, experimental testing at all scales is required to produce certain data and information on seismic performance of wood-frame buildings to support detailed numerical analyses.

Experimental data on the physical properties of building components is essential to develop numerical models that accurately represent the real world. While there has been a significant amount of physical testing of the seismic performance of building components and assemblies, the most of that testing has been forward-looking—i.e., in support of the design and construction of new buildings. Relatively little testing has been performed on archaic construction types.

Therefore, the scope of physical testing for this project should focus on filling the gaps in available data for analysis of the selected Index Buildings. Tests should capture the structural response of components and assemblies to cyclic lateral loads as well as detailed information on the nature and extent of "damage" and appropriate repairs at various response levels.

Shake-table testing of full-size buildings, even scaled-down model buildings, is not in the scope of work of this project. But one RFQ&P objective is to identify the most appropriate "shake" tests to identify dynamic characteristics of single family wood-frame structures and to develop seismic-retrofit strategies and details for the *next* phase of the project.

Experimental "shaking" of full-scale buildings could take place in different ways:

- The full size/model building can be constructed and tested on the shake table.
- An existing building could be transported to and mounted on a shake table.
- Ambient (white noise) or induced vibration testing, or even data from man-made implosion of buildings, if available, can also be used to study the dynamic characteristics of existing buildings.

Depending on the specific goals and the type of information sought and the costs and efforts involved, each of these approaches could be appropriate.

Large-scale testing of model- and full-size buildings (un-retrofitted and retrofitted) is left for the next phases of the project, once reliable theoretical models are developed and analyzed, model results are evaluated, and appropriate planning for that high-cost task is made.

The tasks for experimental testing are:

1. Cyclic testing of structural elements and sections, to produce data and information specifically for evaluation and cost-benefit analysis of ATC-110 prestandards.
2. Additional cyclic testing of structural elements and sections to develop/validate fragility functions and support the development and validation of the computational model.
3. A comprehensive testing plan for experimental testing of one or more model- and full-size buildings for future work on this project. This *could* include shake-table testing of buildings (of new, built on the shake-table, and of old or existing and transported to the shake-table, un-retrofitted and retrofitted, and ambient testing, among various possibilities).
4. The goal of these tests, which will be part of next phase(s) of the study, is to assess the earthquake response of the Index Buildings and test and evaluate alternate retrofit schemes.

This testing program will lay the foundation for experimental testing for future work and should include a wide range of information, including: the ~~I~~index-Buildings recommended for testing (un-retrofitted and retrofitted), the number and specifics of the tests, (e.g., the ground-motion time-histories selected), justifications for the selected time-histories, the requirements for the shake table(s) (e.g., size and degree of freedom), instrumentations, information collection and processing procedure and protocol, estimated costs, and timetables.

<u>Task 5</u>: Analytical Modeling

5.1. Identification and evaluation of existing open-source, commercial, and proprietary software for numerical modeling of wood-frame buildings.

5.2. Modification of existing software, and development of new software, for numerical modeling of single-family wood-frame buildings.

5.3. Application of the selected/modified software model for earthquake-response analysis of wood-frame residential buildings on raised foundations.

Considering the large variability and inherent complexity of wood-frame structures (such as geometry, material properties, types and details of connections, and loading conditions), determining seismic response and developing reliable retrofit schemes for this class of buildings requires extensive use of representative theoretical models.

Development, modification, verification, and validation of computational models for analysis of wood-frame structures are challenging tasks.

- The design-analysis of other common building types (e.g., steel and concrete) is comparatively more straightforward and results are more reliable than small wood-frame residential buildings.

- Wood-frame residences, especially those of older construction of pre-code era—typically non-engineered—do not lend themselves to straightforward theoretical modeling.
- General-purpose software for design-analysis of other types of structures have been developed, extensively verified and validated, and regularly used in practice within the past several decades.

These are not readily appropriate for analysis of wood-frame buildings.

Inherent anisotropy and nonlinearities in the engineering properties of timber materials, combined with arbitrary construction detailing, requires the realistic theoretical modeling for seismic response analysis of wood-frame buildings to account for such nonlinearities in performance and uncertainties in the modeled response. Even though, in the study of static and dynamic behavior of components and sections of wood-frame buildings, simple two- or even one-dimensional models often provide reliable data and information, analysis of the building as a whole is obviously a three-dimensional problem.

This dictates that objective and reliable dynamic analysis of a typical wood-frame building requires software with nonlinear and three-dimensional capabilities. Even with the existence of such software, the computational demand must be explored and addressed. With these challenges, earthquake-response analysis of older residential wood-frame buildings will involve much uncertainty, extensive simplifications, assumptions, and varied judgments.

The proposal for this research task should:

(1) Identify existing publicly available and proprietary software with capabilities suited for this application or that can be reasonably modified;.
(2) Provide justification for selection and plans for further modification, verification, and validation of selected software model(s);
(3) Discuss capabilities and limitations of the selected/modified software used for the analyses;
(4) State the types of analysis (e.g., 1-D, 2-D, 3-D, linear-elastic, or nonlinear time history) determined to be suitable to study different aspects of the problem, with justification, including a rough estimate of the extent of numerical modeling required;
(5) Provide details on verification, validation, and benchmarking of the computational software for analysis of components and structures; and
(6) Explain type of output and post-processing, analysis, and evaluation of the data.

The CUREE-Caltech Project (the "Project") relied on three computer-software programs with different features and capabilities to analyze wood-frame buildings: "CASHEW" (Cyclic Analysis of Shear Walls), a two-dimensional model; SAWS (Seismic Analysis of Wood-frame Structures, a wood-specific three-dimensional model), which was built off of the CASHEW program and produced nonlinear static analysis (pushover) or nonlinear dynamic analysis; and a generalized two-dimensional commercial program, RUAUMOKO.

The Project used SAWS to model the global force-deformation behavior of the wood-frame. To reduce the computational requirement of the SAWS program, the modeling was extensively simplified, resulting in over-simplification and multiple limitations in the SAWS modeling.

One limitation of SAWS was that it treated the diaphragms as either fully rigid or fully flexible; another limitation was its inability to compute the P-delta effects, an important metric in building performance assessment.

For the *method of analysis*, a three-dimensional, nonlinear but simplified "pancake" model of the building was analyzed using RUAUMOKO software; as for *retrofit alternatives*, only one retrofit measure for the Small-House Index Building was considered; and for *time history analysis*, *ground motion input* for testing the retrofitted index building, only one component of a single acceleration time history was used.

In short, due to the extensive simplifying assumptions made in developing the above computational models of wood-frame buildings, many limitations and perhaps excessive approximations of the model predictions were to be expected with the software the Project used. While the information on seismic performance of single-family wood-frame buildings that was gathered in the CUREE-Caltech project is limited and insufficient for the type of residential wood-frame buildings in consideration in this RFQ&P, the Project's approach, after review and improvement, and the software, after significant modifications, may be used for this RFQ&P.

Since completion of the Project, some progress has been made in developing software intended or applicable for seismic analysis of wood-frame buildings. In particular, NEESWood project developed the SAPWood (Seismic Analysis Package for Wood-frame structures) program for analysis and testing of wood-frame structures, especially within the framework of performance-based engineering.

SAPWood, developed by building on the two Project programs (CASHEW and SAWS), performs nonlinear seismic structural analysis and has some capabilities for loss analysis. The program, with some modifications, might be useful for analyzing single-family wood-frames on raised foundations.

Another open-source program that has potential for this research is the OPENSEES (The OPEN System for Earthquake Engineering Simulation).

In addition to numerical modeling and analysis of the cripple-wall Index Buildings, each Index Building (or a representative subset) should be modeled with a zero-height cripple wall—i.e., with the floor joists resting on and attached directly to the sill. This sub-task should assess the potential for the sliding failure mode at the sill/foundation interface as a function of the size and spacing of sill anchor bolts. The effects of friction at the interface should be included in the analysis. If this case of "zero-height" cripple wall is simply taken as a limiting case of finite-height cripple wall, and analyzed using software developed for exclusively finite-height cripple walls, justifications for the approach should be provided.

Analytical Modeling in ATC-110:

A task in the ATC-110 project is "Analytical Verification Needs." Specifically, analyses of un-retrofitted and retrofitted cripple walls with different heights (2', 4', and perhaps up to 8') are expected to be performed. Analytical studies of other systems, such as hillside houses and room over garage, might also be carried out as a part of ATC-110.

From the notes of the ATC-110 Steering Committee meeting (Appendix A), the "analytical studies" task is a major task in that project. It involves not only the selection and application of software for verification purposes but also, to some extent, studying the capabilities and limitations of the software for the specific uses. Identification, evaluation, and modification of existing software for analysis and simulation of wood-frame buildings, particularly for single family wood-frames on cripple walls, is a major task in this RFQ&P as well. Therefore, the activities in the analytical verification task in ATC-110 and the similar task in this RFQ&P must be coordinated, and the progress of this task in both projects should be synchronized.

Due to the many similarities (and some parallel efforts) on the use of analytical models in both ATC-110 and this RFQ&P, it is essential, in defining the scope and performing the work on this particular task, to have continuous communication and some joint efforts.

Task 6: Developing Fragility-Modification Functions

The key objective of this project and this task is to develop Fragility-Modification Functions to modify the existing fragility functions of HAZUS (and perhaps any other publicly available software) and proprietary portfolio-modeling software.

The exact nature of the fragility-modification functions should be compatible with existing modeling methodologies. Conceptually, a Fragility Modification Function will describe the benefit (i.e., the reduction in the earthquake/damage ratio) of a particular retrofit as a function of intensity of shaking (demand). It is expected that the value will be zero for low levels of demand (i.e., within the elastic capacity of the cripple wall), reach a maximum at a moderate level of demand (i.e., shaking that would cause collapse of the cripple wall), and perhaps decrease at the highest levels of demand.

Task 7: Synthesizing and Reporting

Each major task described above is expected to generate one or more published reports. The final deliverable to the CEA will be two reports that summarize the results of individual project tasks and synthesize those results into the overall conclusions and findings of the project.

- One report will be written for portfolio modelers.
- The second report will be written for a lay audience.
- Additionally, six-month progress reports, summarizing the progress of all tasks in the project during the course of the project to date, must be delivered to the CEA.

Project Plan, Project Management, and Project Control:

Project Plan:

The various research tasks described above can be performed simultaneously or consecutively, depending on the purpose and the specific goals in the tasks. Estimated level of effort and time needed to complete each task will vary, depending on many factors. This could lead to project delays and setbacks.

It should be emphasized that integrating the findings of different tasks, in order to achieve the goals of the project, is a critical effort in this project.

Project Management:

The proposer will assemble the project team and form the Working Groups (WGs), assigning a Project Manager (PM) or Principal Investigator (PI). The PM or PI will manage the project and serve as a point of contact throughout the project.

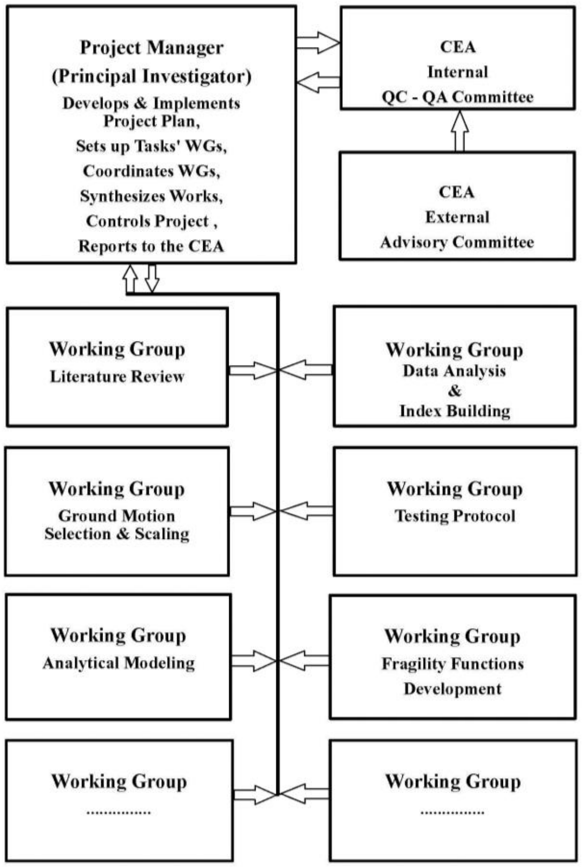
The lead person in every WG must be approved in advance by the CEA.

Any subcontract issued by the PM or PI must be presented to the CEA for prior approval.

A sample chart—which can be modified by the PM or PI but must be approved by the CEA—is shown below.

[INTENTIONALLY BLANK]

Sample Project Structure & Functions Chart



VII. Estimated Cost of Services

All costs to develop submittals and attend interviews during this procurement process are the sole responsibility of the proposer and cannot be charged to the CEA.

Provide cost estimates for the following (submittal must state clearly and completely all fees and costs associated with anticipated work, stating the fees separately from the costs):

VIII. Minimum Proposer Qualifications

The proposing organization or individual must meet, to the CEA's satisfaction, all of the following minimum qualifications to be considered for a contract award. Each proposer must establish minimum qualifications by completing the "Statement of Minimum Qualifications." Failure to satisfy all minimum qualifications, in the CEA's sole judgment, will result in immediate rejection of the proposal.

As of the issue date of this RFQ&P:

1. The organization or individual must have been in business for at least five years.
2. The organization or individual (including subcontractors) must have at least five years of substantial and relevant professional experience in project management, engineering, construction, cost estimating, or modeling in the seismic performance of wood-frame construction.
3. The organization or individual must have substantial, relevant professional experience with clients and similar projects (i.e., in seismic performance of wood-frame construction). The most relevant experience should be fully described.

Any and all submittals may be rejected if the CEA determines, in its sole discretion, that they are not competitive or the cost is unreasonable or excessive. The CEA reserves the right to suspend or cancel, without notice and at any time, this procurement process if the CEA deems suspension or cancellation to be in its best interests.

IX. Required Submittal Format

A submittal must include and adequately address the following elements, in the order listed:

A. **Signed cover letter:** CEA will reject any submittal that contains an unsigned cover letter. The letter must also contain the following:

   1. Proposer's name, address, and telephone and fax numbers;
   2. Name, title or position, telephone number, and email address of the person signing the cover letter and any other persons authorized to make representations regarding the response to the RFQ&P;

3. A statement that the signer's signature constitutes unrestricted authority to bind contractually the proposer, co-proposers, and any subcontractors cited in the proposal;
4. A commitment that the proposer will be bound by the contract provisions described in Attachment A: Terms and Conditions;
5. A statement that the proposal will not be withdrawn, absent good cause, for at least 120 days from the submission date; and
6. A statement that the proposer has reviewed all addenda posted until the date shown on the "Schedule of Key Dates."

B. **Overview** of the proposer and any cited subcontractors, including:

1. Professional affiliations (of firm, organization, academic institution, and individuals);
2. Length of time in business or operation;
3. Number of clients for whom the proposer performs or has performed project management services or the other areas of expertise called for in the RFQ&P (e.g., engineering, construction, cost-estimating, or modeling in the seismic performance of wood-frame construction);
4. Location of firm, organization, or academic institution, or individual descriptions of clients (by name or industry);
5. Organizational structure (individual, partnership, academic, corporation, and the names of any affiliated companies and organizations) and identifying information for key individuals who hold ownership positions;
6. Management history of executive employees;
7. Number of employees or researchers (if proposer is a firm, organization, or academic institution); and
8. Professional and educational history of each key personnel or subcontractor who would perform significant professional work on the CEA's behalf.

C. At a minimum, a description of the proposer's three largest clients for which project-management services are or were provided:

1. Ranked by total amounts billed to, or hours worked for, those clients in the past five years—specific dollar amounts or hours need not be provided;
2. Dates when those business or professional relationships were established;
3. Comprehensive summary of the services provided to those clients;
4. A full description of any personal or business relationships, liabilities, or other factors that might be, or become, an apparent or actual conflict of interest in rendering services to CEA (for each proposer, the proposing firm/organization/academic institution and each key service provider of same);

5. Full identification and description of any litigation or regulatory proceedings to which the proposer is, or has within the past five years been, a party, a representative of a party, or a witness for a party, and a statement of how any such litigation or regulatory proceedings could affect the proposer's ability to perform work on behalf of CEA;
6. At least three client references (or references provided by employees of clients) within the past five years, including the name, company, title, address, and telephone number, and a description of the services provided;
7. Number of years the proposer has worked (or has been employed) as a program or project manager or in the other areas of expertise called for in the RFQ&P (e.g., engineering, construction, cost-estimating, or modeling seismic performance of wood-frame construction); and
8. For prior consulting work, a description of the substance and relevance of the prior work experience to the work required by this RFQ&P.

D. A comprehensive schedule of hourly (or other periodic or project-based) **rates or fees** the proposer would charge CEA for the services described in Section III (Project Deliverables).

E. A Preliminary Project Plan, with adequate details on the implementation of the project, from work on individual tasks, communication and collaboration among various tasks during their progress, plans and mechanisms for integration of the results of individual tasks, plans for quality control, required meeting and workshops, and plans for providing progress reports to the CEA, together with cost estimates and approximate timelines and milestones, must be submitted to the CEA as a part of any proposal.

X. Schedule of Key Dates

The following schedule is subject to modification by CEA. **ALL PROPOSERS** must conform to this schedule or they will be ineligible for consideration. Inquiries must be made as stated in Section VIII (Submitting Questions).

January 5, 2015	**Release Date** for RFQ&P #08-14
February 13, 2015	**Questions** from potential proposers must be received by the CEA by no later than 5:00 p.m. (Pacific).
March 6, 2015	**Responses to Questions** will be posted on the CEA website by 5:00 p.m. (Pacific). [**NOTE**: CEA's delays, if any, in posting responses to questions will not extend the deadline for submittal.]
March 6, 2015	**Clarification addenda** will be posted on the CEA website

	by 5:00 p.m. (Pacific).
March 31, 2015	**Submission deadline**: All submittals must be physically received at the CEA office by no later than 5:00 p.m. (Pacific).
May 29, 2015	**Selection**: CEA will select and announce the successful proposer(s). This is an approximate date and may be changed unilaterally by the CEA at any time.

XI. Questions and Responses; Errors and Omissions; Addenda

A. **Questions**: Written questions must be received at the CEA office no later than 5:00 p.m. (Pacific) on February 13, 2015.

Questions may be submitted by email only to TBD@calquake.com.

Responses to questions will be provided solely by posting on the CEA website www.EarthquakeAuthority.com on the *Contracting Opportunities* page. No individual responses will be provided; all responses will be provided to the public on the CEA Web site.

The CEA asks that proposers submit any questions as early in this RFQ&P process as possible.

Email inquiries to: TBD@calquake.com

Comment [L1]: Request submitted to IT for an address

Each proposer acknowledges and accepts an affirmative responsibility to inquire regarding, and seek clarification of, any portion of this RFQ&P that the proposer does not understand or claims ambiguous. If a proposer claims any ambiguity, conflict, discrepancy, omission, or other error in the RFQ&P, the proposer must immediately notify the CEA's RFQ&P#8-14 Project Manager and request clarification.

- **Clarification Addenda**: CEA reserves the right, in its sole discretion, to modify any part of this RFQ&P by issuing a written addendum. All addenda issued by CEA before the final submission date for proposals will be sent to all parties who were sent the RFQ&P, and all such addenda will be posted to www.EarthquakeAuthority.com on the *Contracting Opportunities* page.

- All addenda issued by the CEA after the final submission date for proposals will be posted solely to www.EarthquakeAuthority.com on the *Contracting Opportunities* page.

CEA, in its sole discretion, may disregard any and all claims of ambiguity, conflict, discrepancy, omission, or other error received by CEA after the final submission date for proposals,

No proposer will be entitled to or granted additional time to meet any deadline.

B. The provisions of any addendum formally issued by the CEA are automatically incorporated into this RFQ&P. If appropriate, addenda may also be integrated in form or substance into any eventual contract.

Proposers are charged with awareness of all addenda posted until the date shown on the "Schedule of Key Dates" in Section VII. In its cover letter, each proposer must acknowledge that it has reviewed all addenda posted on the CEA website on or before the date shown on the "Schedule of Key Dates.".

C. **Proposer's Error or Omission:** If, before the submittal date, a proposer discovers an error or omission in a submittal already provided to CEA, the proposer should notify CEA, withdraw its submittal, and then correct the submittal before the deadline to submit. Corrections or modifications offered in any other manner will not be considered.

XII. Confidential Information

Should a submittal contain confidential or proprietary information, a statement to that effect must be included in the cover letter and providing the basis for that characterization. Each and every page containing confidential or proprietary information must be so designated in the upper-right-hand corner. **A submittal cannot be considered confidential and proprietary in its entirety.**

The CEA will use reasonable efforts to keep pages marked confidential and proprietary from public disclosure, except to the extent provided in any resulting contract or the extent required by law. CEA makes no representations or warranties that its efforts will be successful.

The names of proposers responding to the RFQ&P are not confidential, regardless of any attempt by a proposer to designate them as confidential.

All RFQ&Ps become the property of CEA upon submission.

XIII. Submittal Delivery

A. **Method**: The CEA must physically receive all submittals:

1. Only by U.S. mail, personal delivery, or courier service.
2. **Faxed submittals will not be accepted**.
3. **No later than 5:00 p.m. (Pacific) on Tuesday, March 31, 2015**;

4. As one "Original," with original signature(s), and four copies;

5. The original submittal must be plainly marked "Original."

B. **Address**: If sent by U.S. Postal Service, submittals should be addressed and labeled as follows:

> California Earthquake Authority
> 801 K Street, Suite 1000
> Sacramento, California 95814
> CONFIDENTIAL
> Attention: RFQ&P#08-14 Project Manager

If sent by courier service or personally delivered, the same street address should be used and the CEA phone number should be included: 916-661-5000.

C. **Upon submission**: All submittals are become property of the CEA.

D. **Late submissions**: Late submissions will be returned unopened, and the proposer will not be entitled to participate in this procurement process. CEA accepts no responsibility for lost, misplaced, mishandled, or late-delivered submittals.

XIV. <u>Evaluation Criteria and Scoring of Submittals</u>

The purpose of the proposal-evaluation process is to: (1) determine whether the proposals satisfy the minimum qualifications, content, and format requirements, and (2) identify the proposers most likely to satisfactorily perform the services described. The evaluation process will be conducted in a comprehensive and impartial manner.

CEA may invite certain finalists to be interviewed at its office in Sacramento, California. All costs and expenses associated with preparing and submitting responses to this RFQ&P, all travel and travel-related costs of participating in any requested interview, and any and all costs associated with a contract-negotiation processes, are the sole responsibility of the proposer.

Each proposal package will be date- and time-stamped when received. Proposals received after the final proposal-submission date and time will be returned, unopened.

Each timely proposal will be reviewed to determine whether it satisfies the minimum qualifications specified in Section I.

Proposals that meet the minimum qualifications will be evaluated and scored. The highest possible score is 100 points.

Criteria and maximum score for the proposal are noted below:

CRITERIA	MAXIMUM POINTS
Work Plan	40
Qualifications, Firm Background, and History	30
Proposed Compensation (all fees and costs)	10
Interview	15
References	5
TOTAL SCORE POSSIBLE	100

The CEA reserves the right to contact any proposer between April 6, 2015, and April 28, 2015, if CEA requires additional information or clarification. All proposers must include complete contact information for this period.

XV. Terms and Conditions

The services to be provided under agreement with CEA will be provided under a form of written contract provided by the CEA. This contract may include, *but will not be limited to*, the terms and conditions set forth below. The contract may include a central contract document and attachments, as well as any matter discussed in or sought through this RFQ&P—some significant contract attachments, because of their subjects, must await actual contract negotiations, and for that reason, despite their being referred to below, they are not available for consideration now as part of this procurement.

Proposers must advise of any objections or requested modifications to the Terms and Conditions, in its submittal. CEA will evaluate any objections or requested modifications, and may contact proposers for discussion or clarification. CEA may also determine the extent of a proposer's objections or requested modifications disqualify that submission.

A. Term of Contract

The contract term will start on July 1, 2015, and terminate December 31, 2018.

B. Terms and Conditions

1. Services to be Performed; Management of Services by CEA

1.1 The description of services to be performed under this Agreement is set forth in *Attachment A: Statement of Work*.

1.2 The CEA's Director of Policy, Research and Special Projects will manage and direct Contractor's activities.

2 Ambiguities Not Held Against Drafter

Because this Agreement has been freely and voluntarily negotiated by the parties, Contractor and CEA agree that ambiguous contractual provisions will not be construed against the drafter.

3 Amendments

This Agreement can be amended only by mutual consent of the parties. No change in any term will be valid unless the change is documented and signed by both Contractor and the CEA. No oral agreement or understanding will bind either Party.

4. Assignment; Delegation

Contractor must not assign any of its rights or delegate any of its duties under this Agreement without first obtaining the CEA's written consent. Any purported assignment or delegation by Contractor, in whole or in part, in violation of this section is voidable at the CEA's sole option.

5. Attorney's Fees and Costs

In the event of litigation between the parties to enforce or interpret this Agreement, the non-prevailing party must pay the reasonable attorney's fees, costs of in-house counsel services, and the actual and taxable costs. These expenses must be paid in addition to any other relief to which the prevailing party may be entitled.

6. Audits

Contractor is and will be subject to examination and audit by the Bureau of State Audits (State of California) and by the CEA (or the CEA's designated representatives) during the term of this Agreement, during any extended term of this Agreement, and for three years after the final payment by the CEA under this Agreement. Contractor must cooperate fully with the Bureau of State Audits, the CEA, and the CEA's authorized representatives in any examination or audit. Any examination or audit would be confined to matters connected with the performance of the required services, including, but not limited to, the costs of administration claimed by Contractor under this Agreement. All adjustments, payments, and reimbursements determined necessary through any examination or audit must be made promptly by the appropriate Party to this Agreement.

7. Changes in Control, Organization, or Key Personnel

7.1 Contractor must notify the CEA in writing within five calendar days:

A. if any of Contractor's representations or warranties ceases to be true;

B. of any change in the roster of Contractor's staff members who exercise a significant administrative, policy, or consulting role under this Agreement, including any of the Key Personnel identified in *Attachment C*;

C. of any change in the majority ownership, control, or business structure of Contractor; or

D. of any other material change in Contractor's business organization.

7.2 Each of Contractor's written notices under this provision must contain information adequate to permit the CEA to evaluate the changes in Contractor's personnel or organization using the same criteria the CEA published to guide the process it used in originally selecting Contractor. Contractor must provide any additional information the CEA might request in connection with the contents of those written notices.

8 Choice of Law

This Agreement will be construed and enforced according to California law (without regard to conflict-of-law provisions). A Party may bring suit on any matter related to or arising out of this Agreement only in the Superior Court of California, County of Sacramento. "Bring suit" includes bringing any action to compel arbitration or enforce an arbitration award. Each Party waives any claim that the Superior Court of California, County of Sacramento, is an inconvenient or improper forum or venue and agrees that the court named above will have in personam jurisdiction over it.

9 Compensation

9.1 The CEA will compensate Contractor for its services in accordance with *Attachment B: Budget*. Payment for expenses Contractor claims to have incurred in its performance of services, are subject to CEA procedures and processes.

9.2 Contractor guarantees its rates and fees, as well as the rates and fees of subcontractors, that Contractor wishes to pass on to the CEA, will not increase during the Initial Term of this Agreement.

9.3 Rates and fees under this Agreement may increase only by and through a writing duly executed by both Parties, and, additionally, subject to the following limitations:

A. For the First Renewal Term, rates and fees may increase by no more than five percent over agreed, like rates and fees applicable to the Initial Term.

B. For the Second Renewal Term, rates and fees may increase by no more than three and one-half percent over the agreed, like rates and fees charged during and for the First Renewal Term.

9.4 Correspondence from Contractor to CEA regarding payments or any compensation matters must be sent to:

California Earthquake Authority
801 K Street, Suite 1000
Sacramento, California 95814
Attention: Bruce Patton

9.5 Billing and Invoicing. Contractor must submit itemized monthly invoices, in arrears for services already performed; the CEA will make no payments in advance of services rendered. Each invoice must include, at a minimum:

A. Contractor's name, address, telephone number, and federal tax ID number;

B. an itemized description of services rendered and costs and expenses incurred during the billing period, including a detailed cost and expense breakdown accompanied by full back-up documentation;

C. the total amount of the invoice; and

D. the Agreement identification: *Project Name-*

E. Invoices must be addressed to:

California Earthquake Authority
801 K Street, Suite 1000
Sacramento, CA 95814
Attention: Accounts Payable

F. Invoices may be submitted electronically to: ap@calquake.com.

9.6 Payment will not be due or payable by the CEA until the invoiced work is performed, correctly identified on the invoice, and accepted by the CEA. The CEA will pay Contractor's invoices as promptly as fiscal procedures permit.

9.7 Retention: CEA, may, at its sole option, refrain from payment of 10% of the costs associated with an assignment conducted under the Agreement until Contractor has completed all work associated with the assignment to the CEA's satisfaction.

10. Compliance with Laws

10.1 The Contractor must comply with all applicable laws, including those laws specifically applicable to it, or to any aspect of the work it performs or secures under this Agreement, because of its relationship to the CEA. Any references to sections of federal or state statutes or regulations are also references to any amendments or successor provisions to those sections.

10.2 Permits and Licenses. At its sole expense, Contractor must procure and maintain any permits and licenses necessary to accomplish the services required or desirable under this Agreement.

10.3 Additional Documents and Acts. Contractor must execute any additional documents and perform any additional acts as might be reasonable and necessary to carry out the provisions of this Agreement.

11. Confidentiality

11.1 In the course of its duties, the Contractor will gain knowledge of investment, financial, personal, private, personally identifiable, technical, accounting, and statistical information pertaining to the CEA; the CEA's Governing Board and Advisory Panel and their members; CEA employees and staff; CEA contractors, vendors, and agents; and CEA policyholders (collectively, the "Restricted Information"). All Restricted Information is strictly confidential unless the CEA expressly designates particular Restricted Information as non-confidential. Contractor must not directly or indirectly disclose any Restricted Information, or use it publicly in any way that requires its disclosure, either during or following the term of this Agreement, without the CEA's duly provided advance, written, specific permission.

11.2 Contractor will not produce, reproduce, publish, or disseminate Restricted Information for its or any person's personal gain. For purposes of this Section 11, "person" means any person, association, organization, partnership, business trust, limited liability company, or corporation.

11.3 Contractor will only release Restricted Information to those of its employees, representatives, contractors or subcontractors, or other persons, whom Contractor has first officially notified in writing—and who have agreed—that they expressly bind themselves to maintain confidentiality of the Restricted Information in the manner required by this Section 11 and its subsections. To the best of its ability, Contractor must affirmatively protect all Restricted Information from unauthorized use or disclosure, whether by itself or by others with whom or with which it has shared Restricted Information.

11.4 The Contractor's disclosure of Restricted Information that is done in violation of any portion of this Section 11 is a material breach of this Agreement.

11.5 Contractor understands that the CEA is a public instrumentality of the State of California and that certain of CEA's records, and Contractor's records in CEA's possession, might be subject to public disclosure and production under various laws, including (but not limited to) the California Public Records Act (Chapter 3.5, commencing with Section 6250 of Division 7 of Title 1 of the California Government Code) and the Bagley-Keene Open Meeting Act (Article 9, commencing with Section 11120, of Chapter 1 of Part 1 of Division 3 of Title 2 of the California Government Code). The CEA will notify Contractor promptly after receiving a request for disclosure of any documents or materials in the CEA's possession that Contractor has designated as proprietary and confidential. CEA will reasonably cooperate with Contractor, within the statutory framework and limitations on CEA's duties under the applicable law(s), and at Contractor's sole cost and expense, in Contractor's efforts to protect its trade secrets and confidential information.

12. Conflicts of Interest

12.1 Contractor's Warranty. By its execution of this Agreement, Contractor warrants to CEA that no claimed, apparent, or actual conflict of interest exists on its part, or on the part of any principal, employee, Key Personnel, contractor, or subcontractor, that would influence its or their advice and recommendations to the CEA, statements made about the CEA to any person or entity, activities performed on behalf of the CEA, or decisions recommended or taken on behalf of the CEA.

12.2 Contractor's Affirmative Duties to Disclose and Address Conflicts of Interest. The parties mutually intend and agree that the duty to disclose a potential, claimed, apparent, or actual conflict of interest pertaining to any person or party described in Subsection 12.1 is Contractor's sole, affirmative duty and that Contractor's failure to identify and disclose any of those types of conflicts of interest is a material breach of this Agreement and a default justifying Agreement termination, as the term "default" is used in Subsection 28.2 (Termination for Contractor's Default). The CEA has sole authority and discretion to determine at any time the import and significance of Contractor's failure to identify and disclose any conflict of interest. Contractor must abide in good faith by any protocols developed by CEA before or during the term of this Agreement to identify, disclose, and address potential, claimed, apparent, and actual conflicts of interest. Contractor promises to provide the CEA with any requested information, documentation, and assurances, in writing if so requested, concerning any potential, claimed, apparent, or actual conflict of interest.

12.3 Fair Political Practices Laws. Contractor must not directly or indirectly receive any personal benefit from information obtained from the CEA, or received or provided on behalf of, the CEA. Contractor must disclose to CEA any personal investment or economic interest of any principal, employee, Key Personnel, contractor, or subcontractor that may be enhanced or made more valuable by any recommendation made to or activity undertaken on behalf of the CEA. Contractor acknowledges that the CEA is subject to the provisions of the fair political practices laws of California (California Government Code Section 81000, et seq., and the regulations adopted under that law), and Contractor must comply with the applicable requirements of that law and those regulations. If requested by CEA, designated Contractor personnel (principals, employees, Key Personnel, contractors, or subcontractors) must file with the CEA's designated filing officer a Form 700 "Statement of Economic Interests" in compliance with CEA's Conflict of Interest Code (see: California Code of Regulations, Title 5, Part III, Chapter 1, Section 22000, et seq.).

12.4 Neither Contractor, nor any of its affiliates, officers, directors, principals, employees, or Key Personnel, may submit a bid or be awarded a contract to provide services to CEA, procure goods or supplies for CEA, or perform any related action that is an outgrowth of the services or advice Contractor provides CEA under this Agreement.

13. Cumulative Remedies

The rights and remedies provided in this Agreement are cumulative and are not exclusive of any rights or remedies any Party might otherwise have at law or in equity.

14. Drug-Free Workplace

Contractor must execute and return the certification in *Attachment E* with the signed Agreement. CEA may terminate this Agreement if the Contractor fails to comply with Attachment E's drug-free-workplace requirements.

15. Force Majeure

Neither Party is liable for damages that result from delayed or defective performance when the delays arise from an event that is beyond the control and without the fault or negligence of the offending Party ("force majeure events"). Force majeure events expressly include acts of a public enemy, acts of the State in its sovereign capacity, disabling strikes, epidemics, and quarantine restrictions. Force majeure events expressly do not include fires, floods, earthquakes, power failures, or freight embargoes; during those events and their aftermath, the CEA relies on Contractor's statements and assurances in its Disaster Recovery Plan (*Attachment F*) and expects continuity of service.

16. Indemnification

16.1 Contractor must indemnify, defend, and save harmless the CEA, the CEA Governing Board and Advisory Panel and each of their members, and all CEA officers, agents, employees, and staff from and against any and all losses, costs, liabilities, damages, and deficiencies, including interest, penalties, and attorney fees, arising from any claims of:

A. Contractor's breach of its promises, warranties, or other obligations under this Agreement; and

B. Contractor's acts or omissions constituting bad faith, willful misfeasance, negligence, or reckless disregard of its duties under this Agreement.

16.2 For purposes of this Section 16, and in reference to the provisions of Section 4 (Assignment; Delegation), a subcontractor's or Contractor's consultant's act or omission to act, whether under Contractor's permitted or unpermitted delegation under this Agreement or unrelated to any delegation, is considered for all purposes the act or omission of Contractor.

17. Insurance

17.1 Contractor warrants that it maintains, or that it will obtain and will have bound as of the date of its commencing any work whatsoever under this Agreement, adequate liability and other necessary insurance, including the workers' compensation insurance required by law covering injury to or death of its employees, and Contractor promises to maintain all that insurance at levels acceptable to the CEA during the term of this Agreement. In that connection, Contractor agrees to:

A. maintain general liability insurance with limits of no less than $1,000,000 per person and $3,000,000 per occurrence, providing coverage for all of Contractor's activities and naming CEA an additional named insured in that liability policy, with right to notice of nonpayment of premium and of cancellation of the policy;

B. maintain adequate and appropriate errors and omissions insurance, with limits of no less than $1,000,000; and

C. provide satisfactory evidence of insurance coverage and limits to the CEA on request.

17.2 By its signature on this Agreement, Contractor acknowledges that CEA has no obligation to provide workers' compensation insurance, or employee benefits of any nature, for Contractor or its employees, or for Contractor's subcontractors or their employees.

18. Key Personnel

18.1 Attachment C ("Key Personnel") states the name and title of each person who will exercise on behalf of Contractor a significant administrative, policy, or consulting role under this Agreement. Those personnel are referred to in this Agreement as "Key Personnel."

18.2 Contractor may not substitute, replace, or reassign any person considered Key Personnel without the CEA's advance written approval. With the CEA's approval, the parties may jointly document a change in Key Personnel, and that writing will be deemed a part of this Agreement. All Key Personnel are expressly subject to the provisions of Section 7 (Changes in Control, Organization, or Key Personnel) and Section 20 (Notices).

18.3 In its sole discretion, the CEA is entitled to terminate this Agreement immediately, upon written notice from the CEA to Contractor served pursuant to Section **Error! Reference source not found.** if Contractor changes any of its Key Personnel without the CEA's express, written advance approval or if any one or more of the Key Personnel depart Contractor's staff and no substitute agreed by the Parties has been provided.

19. Notice of Proceeding

Contractor must promptly notify the CEA in writing of any investigation, examination, or other proceeding commenced by any regulatory or other government agency, involving Contractor, any of its key personnel, or any of its subcontractors, that is not conducted in the ordinary course of Contractor's business.

20. Notices

20.1 Any notice required or permitted by this Agreement is deemed given:

A. on the date of personal delivery;

B. three days after the mailing date if the notice is deposited with the U. S. Postal Service with first-class postage affixed; or

C. on the date of receipt as shown by written (or, if the record is contained only on a computer storage device, stored) evidence of delivery when delivered by U.S. Postal Service Express Mail or by a commercial courier service.

20.2 No notice is effective if given only by fax.

20.3 Notices are to be directed to the following representatives:

For CEA:

California Earthquake Authority
801 K Street, Suite 1000
Sacramento, California 95814
Attention: RFQ&P #08-14 Project Manager

and

California Earthquake Authority
801 K Street, Suite 1000
Sacramento, California 95814
Attention: General Counsel

For Contractor:

____
____
____
____

21. Publicity

Contractor must not release, publish, or post any information, publicity, or announcement concerning the CEA, this Agreement, or Contractor's services under this Agreement, without the advance, express written approval of the CEA. Notwithstanding the foregoing, Contractor may publicly disclose the fact that the CEA is a client or customer of the Contractor.

22. Recordkeeping; Record Retention

22.1 Contractor will keep accurate and appropriate records to accomplish and document the services it performs under this Agreement.

22.2 Contractor will use reasonable efforts to ensure that books and records of any permitted subcontractors are accurately maintained.

22.3 All books and records described in Subsections 22.1 and 22.2 must be made available for inspection and copying by CEA or its representatives upon reasonable advance notice and during normal business hours. Contractor must maintain its CEA-related records separate from the records that pertain to its other clients or customers.

22.4 All information, data, reports, and records associated with the CEA are the property of CEA and must be returned or provided to the CEA if requested at any time, and as well, upon termination or expiration of this Agreement. Notwithstanding that requirement, Contractor is permitted to keep copies of the CEA-related information, data, reports, and records for three years after final payment under this Agreement.

23. Relationship of the Parties

23.1 This Agreement creates a relationship of independent contractor. CEA is interested in the results to be achieved under this Agreement, and the conduct of the work will lie with the Contractor. The work Contractor performs under this Agreement, however, must meet the general approval of the CEA and will be subject to the CEA's general right of inspection and supervision to secure its satisfactory completion.

23.2 Contractor's principals, employees, and contractors are not and will not be considered employees of CEA and are not entitled to any benefits provided by the CEA, or by the State of California, to its employees.

24. Reports

24.1 In addition to project deliverables, Contractor must provide other material that the CEA reasonably requests.

24.2 Contractor will provide oral or written progress reports, as requested, in order to:

A. determine if Contractor is performing satisfactorily and timely;
B. communicate interim findings or findings; and
C. facilitate discussion and resolution of issues.

25. Rights in Work

25.1 Neither Contractor, nor any subcontractor or other consulting staff employed by Contractor, has or will have any rights in any reports, data, documents, systems, or concepts (collectively, "Products") produced by Contractor for CEA. Only CEA has ownership of the Products that result from services provided under this Agreement, whether by the Contractor or any subcontractor. CEA reserves the right to give or otherwise release the Products.

25.2 Contractor reserves all rights to its intellectual property ("IP") that predates the work performed for CEA, and to coincidental improvements to its IP made during the performance of the work under this Agreement, to the extent that such IP and coincidental improvements are exclusive of the Products.

25.3 With CEA's prior written approval for each publication or presentation proposed by

Contractor, CEA may grant Contractor the rights to publish results of its work in professional journals or as presentations at professional conferences. CEA will not unreasonably withhold or delay approval or non-approval.

25.4 All Products are, and will be considered for all purposes, works-for-hire, including for purposes of interpretation under U.S. Copyright Law, 17 U.S.C. §101, et seq. To the extent that the Products are not construed as works-for-hire, Contractor will assign, and hereby does assign to the CEA, perpetually and without further consideration, all right, title, and interest to the Products. All right, title, and interest in the Products, and any copyright, patent, trade secret, or other proprietary right in the Products, are and will be the sole property of the CEA.

25.5 Contractor grants to the CEA a perpetual, worldwide, royalty-free license or sublicense to use, copy, maintain, or modify, or to sublicense others to use, copy, maintain, or modify, intellectual property developed by Contractor before the date of the parties' initial agreement to develop the Products (before January 1, 2014) and used by Contractor in connection with the development and production of the Products.

25.6 Contractor will place in a "Source Code Escrow" the source code, object code, and documentation for all software used in connection with the development of the Products, and developed by Contractor for CEA after the date of the parties' initial agreement to develop the Products (on and after January 1, 2014). The source code, object code, and documentation for that software will be released to the CEA if the Contractor:

A. is dissolved or adjudged bankrupt;

B. is acquired by or merged with another business entity;

C. is in material breach of this Agreement;

D. is terminated for any reason; or

E. has completed services for CEA.

26. Subcontractors

26.1 Contractor must perform the work contemplated under this Agreement with resources available within its own organization. Contractor must not subcontract any part of its work under this Agreement without the CEA's express, advance written permission.

26.2 Contractor must require in writing of any subcontractor that it be bound by all provisions of this Agreement.

27. Taxes

CEA is exempt from Federal excise taxes and will make no payment for or in connection with personal property taxes levied on Contractor or taxes levied on or in connection with Contractor's compensation.

28. Termination

This Agreement can be terminated as follows:

28.1 Termination at the Option of the CEA. This Agreement may be terminated in whole or in part, for any reason including the convenience of the CEA, and at any time with 30 days' written notice by CEA. Despite any such termination, and at its sole option, CEA can maintain this Agreement in effect for those transactions pending on the effective date of termination until those transactions are completed. Upon its receipt of a termination notice from CEA, Contractor must promptly discontinue all services affected unless the notice specifies otherwise. If CEA terminates all or any part of this Agreement, CEA will pay Contractor for satisfactory services rendered before the termination, but not more than the maximum amount payable under applicable compensation provisions of this Agreement.

28.2 Termination for Contractor's Default. In addition to any other termination right, CEA is entitled, with two days' written notice to Contractor and without any prejudice to its other remedies, to terminate this Agreement because of Contractor's failure to fulfill any of its Agreement obligations—any such failure is termed Contractor's Default. Upon its receipt of any notice from CEA terminating this Agreement for Contractor's Default, Contractor must immediately discontinue all services affected, unless the notice directs otherwise. Following a two-day notice of termination, CEA will pay Contractor only the reasonable value of its services rendered. In CEA's sole discretion and on any terms CEA may choose, CEA may offer Contractor an opportunity to address any default or cure any breach.

28.3 Termination for Insolvency. Contractor must notify CEA in writing immediately if Contractor, or if any principal of Contractor:

A. files or is placed under federal bankruptcy laws,
B. files or becomes the subject of a state receivership action,
C. is adjudged bankrupt,
D. has a receiver appointed who qualifies,
E. makes an assignment for the benefit of creditors, or
F. is the subject of criminal investigation, indictment, or conviction.

28.4 If any of the events enumerated in Section 28.3 occurs, or if CEA receives notice of any of those events, or if CEA in its sole discretion reasonably determines there is a substantial probability that Contractor will be unable (financially or otherwise) to continue its performance, CEA is entitled to terminate this Agreement immediately, upon two days' written notice.

28.5 Convenience. If CEA gives Contractor a notice of termination for failure to fulfill Agreement obligations and it is later determined that Contractor had not so failed, the termination will be considered to have been for the convenience of the CEA.

28.6 Completion. If CEA terminates this Agreement for Contractor's default, CEA reserves the right to take over and complete Contractor's work by any means. Contractor will pay the CEA for any additional costs CEA incurs to complete the work, to the extent that those additional costs were incurred due to Contractor's default.

29. Termination, Effect of

29.1 All duties and obligations of CEA and Contractor will cease on termination of this Agreement, except:

A. Each Party will remain liable for any rights, obligations, or liabilities that arose or may arise from its activities under this Agreement before it effectively terminated; and

B. Those clauses named in Section 36 (Survival).

29.2 Within 15 days after the effective termination date, Contractor will deliver to the CEA all CEA records, deliverables, and Products, whether prepared by Contractor or received by Contractor from a third party, including (but not limited to):

A. due diligence reports;

B. reports and data prepared and retained by Contractor, subcontractor or consultants;

C. (if applicable) products, modified software, manuals, custom scripts, code, and processes.

29.3 Together, Contractor and CEA will determine an effective method and form to transfer the records and Products; Contractor must deliver all records and Products in CEA-usable form. Contractor will cooperate to ensure an orderly termination process and orderly transfer of services.

29.4 Upon expiration or termination of this Agreement, Contractor must provide all reasonable assistance to move CEA's records, accounts, funds, and required services to CEA's subsequent service provider, if any, without any additional cost to CEA.

30. Time Is of the Essence

Time is of the essence for delivery of services under this Agreement.

31. Waivers

A Party's delay in exercising any right or privilege is not a waiver of any Agreement provision. Neither Party's waiver, or single or partial exercise of any right or privilege will preclude any other or further exercise of any other right or privilege under this Agreement.

32. Warranties

The CEA is committed to, and expects contractor's commitment to, diversity and nondiscrimination in the workplace. Consistent with the foregoing, Contractor warrants its compliance with the following requirements:

32.1 Employees:

A. Americans with Disabilities Act. Contractor warrants that it complies with the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.: the "ADA") and all applicable regulations and guidelines issued under the ADA.

B. Fair Employment and Housing Act. Contractor and subcontractors will comply with the provisions of the Fair Employment and Housing Act (California Government Code section 12900 et seq.) and the related regulations (California Code of Regulations, Title 2, Section 7285.0 et seq.). The regulations of the Fair Employment and Housing Commission that implement Government Code section 12990, subdivisions (a) through (f) (Chapter 5 of Division 4 of Title 2 of the California Code of Regulations), are by this reference made a part of this Agreement.

C. Nondiscrimination. During the performance of this Agreement, Contractor and its subcontractors, and their agents and employees, must not unlawfully discriminate against, harass, or retaliate against any employee or applicant for employment because of race, religion or religious creed, color, age, sex, sexual orientation, gender identity, genetic information, national origin, marital status, medical condition, disability, military service, pregnancy, childbirth, breastfeeding and related medical conditions, or any other classification protected by federal, state, or local laws or regulations. Contractors and subcontractors, and their agents and employees, are expected to take all appropriate steps to prevent such discrimination, harassment, and retaliation, remedy any such conduct that may occur, and implement appropriate measures to prevent such conduct from occurring in the future.

D. Contractor must include the nondiscrimination and compliance provisions of this Subsection 32.1 in all permitted subcontracts to perform work under this Agreement.

32.1 Labor

A. Collective Bargaining. Contractor and its subcontractors must give written notice of their obligations under this clause to all labor organizations with which they have a collective bargaining or other agreement.

B. National Labor Relations Board Certification. Contractor affirms, under penalty of perjury, that no more than one final finding of contempt of a federal court has been issued against Contractor within the immediately preceding two-year period because of Contractor's failure to comply with a federal court's order to comply with a National Labor Relations Board order.

32.2 Standard of Care. The personnel or subcontractors responsible for discharging Contractor's duties under this Agreement are experienced in the performance of the duties contemplated and will meet the appropriate standard of care.

32.3 Signature Authorization.

A. The execution and performance of this Agreement will not:

1. violate any provision of any charter document of Contractor;
2. violate any statute or any judgment, decree, order, regulation, or rule of any court or governmental authority applicable to Contractor; or
3. violate, conflict with, constitute a default under, permit the termination of, or require the consent of any person under, any agreement to which Contractor may be bound, the occurrence of which would have a material adverse effect on the properties, business, prospects, earnings, assets, liabilities, or financial or other condition of Contractor.

B. Contractor, and the person signing the Agreement, warrant that the signer is an agent or authorized representative of the Contractor and is duly authorized by Contractor to enter into this Agreement.

C. Contractor represents and warrants that it has the power and authority to enter this Agreement and carry out its obligations under this Agreement, that it has duly authorized the execution of this Agreement, and that no additional act by Contractor is necessary to authorize the execution of this Agreement. Contractor has completed, obtained, and performed all registrations, filings, approvals, authorizations, consents, and examinations that any government or governmental authority may require for its acts and activities contemplated by this Agreement.

32.4 Contractor warrants that it will promptly notify the CEA of any changes in Contractor's compliance with any of the warranties stated here and agrees to restore the warranties, as the CEA in its discretion may require, if a warranty lapse occurs. If the Contractor does not provide notice to the CEA to the contrary, the CEA has the absolute right to rely on the ongoing effectiveness of each warranty stated here.

33 Term of Agreement

33.1 This Agreement is effective when fully executed, and its term expires on **December 21, 2018**, unless terminated sooner in accordance with the provisions of

Section 28 (Termination).

33.2 No provision of this Section 33 is meant to create any promise or guarantee by either Party that this Agreement will unconditionally remain in effect for any particular term, period, or duration. At all times, this Agreement remains fully subject to all provisions of this Agreement, including, without limitation, those provisions that pertain to terminating this Agreement.

34 Entire Agreement

34.1 This Agreement states all representations of, and the entire understanding between, the parties with respect to the subject of this Agreement, and it replaces any prior correspondence, memoranda, or agreements.

34.2 Binding Effect. This Agreement, and any instrument, amendment, or further agreement executed pursuant to this Agreement, will bind the parties, their successors, assignees, and legal representatives.

34.3 Counterparts. This Agreement may be executed in counterparts. Each counterpart is an original; all counterparts together are one instrument.

34.4 Incorporated Documents. This Agreement consists of the terms of this Agreement and all attached documents that are expressly incorporated. The following schedules and attachments are attached and incorporated into this Agreement:

A. Attachment A: Statement of Work
B. Attachment B: Budget / Fees
C. Attachment C: Key Personnel
D. Attachment D: Business Contingency Plan
E. Attachment E: Drug-Free-Workplace Certification
F. Attachment F: Contractor’s Proposal

34.5 Order of Precedence. For any inconsistencies or ambiguities in the terms of this Agreement and its incorporated documents and attachments, the following order of precedence will be used:

A. applicable laws;
B. the terms and conditions of this Agreement, including attachments; and then
C. any other provisions, terms, or materials incorporated into this Agreement.

35 Severability

Should any court hold any provision of this Agreement to be void or unenforceable, the remaining provisions will remain in effect if they are still capable of performance.

36 Survival

Certain contractual obligations will survive completion of the work or termination of services. These include, but are not limited to: prevailing party's attorney's fees and costs, audit compliance, confidentiality requirements, indemnification, publicity limitation, record-retention, guidelines for both intellectual property and rights in work, and warranties.

37 Titles/Section Headings

Titles and section headings are provided for convenience and are not part of this Agreement.

Executed in Sacramento, California.

For California Earthquake Authority**:**	For Contractor:
XXXX XXXXXXX, XXXX XXXX Officer	Name, Executive Officer
Date	Date Federal Identification Number: _________

Attachment E: Drug-Free Workplace Certification

The Contractor hereby certifies its compliance with the terms of California Government Code section 8355, which provides for a drug-free workplace. In that regard, Contractor must:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations. (Government Code section 8355, subdivision (a))
2. Establish a Drug-Free Awareness Program as described in Government Code section 8355, subdivision (b):
   a) The dangers of drug abuse in the workplace;
   b) The organization's policy of maintaining a drug-free workplace;
   c) Any available counseling, rehabilitation, and employee assistance programs; and
   d) The penalties that can be imposed on employees for drug abuse violations.
3. Provide that every employee who has duties or responsibilities relating to this Agreement:
   a) Will receive a copy of the company's drug-free statement, and
   b) Will agree to abide by the company's statement as a condition of employment on the contract. (Government Code section 8355, subdivision (c))

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized legally to bind the Contractor to the above described certification. This certification is made under penalty of perjury under the laws of the State of California.

____
Authorized Signature

____
Title

______________________________ ______________________________
Date Executed In the County of:

Federal Identification Number _____________

Governing Board Memorandum

December 17, 2014

Agenda Item 19**:** 2015 CEA Business Implementation Plan

Recommended Action: Approve the 2015 CEA Business Implementation Plan

---

Background:

The CEA staff has prepared a Business Implementation Plan (BIP), which corresponds to the 2015 CEA budget for insurance operations and mitigation that the Governing Board approved in December 2014.

The BIP describes, organizes, and supports the Authority's business activities for both insurance services and mitigation programming.

Analysis:

This year's BIP *(please see: Attachment A - 2015 CEA Business Implementation Plan)* follows the general concepts set out above as Background.

CEA department directors, supported by staff analysis, have built the proposed 2015 BIP after assessing and accounting for the presence and status of activities in the 2014 BIP.

That is, in addition to CEA insurance and mitigation initiatives new (and newly described) for 2015, the proposed 2015 BIP generally accounts for elements of the 2014 BIP that, on account of changing business priorities, have been delayed or were changed, or are ongoing or expanded processes.

Throughout 2015, CEA staff will update the Board on the BIP-implementation process.

Recommendation:

Staff recommends the Governing Board approve the proposed 2015 CEA Business Implementation Plan.

California Earthquake Authority
2015 Business Implementation Plan

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources

Execute Strategic Mission

The California Earthquake Authority is California's not-for-profit, public provider of residential earthquake insurance—publicly managed and privately funded, with programs to encourage and support effective action to reduce the risk of earthquake damage and loss.

GOAL ONE: Educate. ***Help Californians learn about their seismic risks in order to prepare for, survive, and recover from damaging earthquakes.***

PRIORITY: Innovation. Develop new ways to help Californians understand their earthquake risks, the value of earthquake-risk mitigation, and the financial-preparedness features of CEA earthquake-insurance products.

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
1. **Expand beyond CEA the use of results from CEA-sponsored message-research study.**	Ongoing	CEA will seek to motivate more people to prepare for California's next damaging earthquake; social-science experts recommend being on-message through everyone, everywhere, all the time.	Chris Nance	Advisory Panel Cal OES SCEC
2. Evolve CEA's *California Rocks!* campaign; engage more PIs in CEA's ongoing Cooperative Marketing Venture (CMV); register more agents ongoing Marketing Value Program (MVP); integrate distribution of Mandatory Offer Marketing Document to motivate consumers to contact their home insurance company to purchase CEA policies: • Introduce CEA website and agent portal. • Engage more PIs in the CMV; promote need for digital pathway between CEA and PI websites so consumers can find information on how to buy CEA polices. • Compel consideration of CEA policies via advertising campaign (broadcast, online, direct mail); promote CEA-policy purchases through PIs. • Introduce social-media policy/strategy. • Train more agents to sell CEA policies.	2015	CEA will seek input from Governing Board, Advisory Panel, and participating insurers.	Chris Nance	Marketing and Strategic Communications Contractor Advisory Panel

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
• Register more agents in the MVP. • Extend Renters Campaign to Southern California. • Promote CEA-policyholder retention through two rounds of direct mail. • Streamline *Joined Forces* programming with American Red Cross through annual statewide auction in April and annual Great California ShakeOut in October. • Integrate other earthquake preparedness stakeholders as appropriate. • Manage programming budgets that separate marketing and mitigation funds. • Integrate expansion of *Earthquake Brace + Bolt* program (an incentive program of the California Residential Mitigation Program, a joint powers authority(CRMP)).				
PRIORITY: Research. Enhance CEA insurance products and strengthen risk-awareness programs with the depth and knowledge gained from CEA's support of quality, publicly available research in seismic science and engineering.				
1. Establish and maintain **communication and response protocols** to coordinate CEA involvement in local-area assistance centers.	Ongoing	Support local-area assistance centers.	Mitch Ziemer Annde Ewertsen	FEMA/Cal OES CDI
2. Conduct and support **research** related to CEA insurance products, risk-awareness, and seismic science and engineering.	Ongoing	CEA-supported studies (e.g. UCERF3 and NGA West2) more accessible to the public, support and sponsor and seismic and engineering research to help CEA policyholders better understand their risk, both to earthquakes and for quake-caused structure and contents damage.	Bruce Patton	CEA-MRT

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
PRIORITY: Technology. Use technology to present and explain CEA information and to prepare and permit the CEA to make a full and effective response to damaging earthquakes.				
1. Develop Agent Interface for CEA Premium Calculator	TBD	IT Project Portfolio 2015		
2. Customer Relationship Management (CRM) System	TBD	IT Project Portfolio 2015	Chris Nance	IT
3. Develop Fault Flyover Map	TBD	IT Project Portfolio 2015	Chris Nance	IT
4. Migrate CEA Externally Hosted Websites to Internal	TBD	IT Project Portfolio 2015	Chris Nance	IT
5. MVP 2015/2016	TBD	IT Project Portfolio 2015	Chris Nance	IT
6. Implement Social-Media Software	TBD	IT Project Portfolio 2015	Chris Nance	IT

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
GOAL TWO: Mitigate. ***Encourage Californians to take action by strengthening their homes and securing their belongings in order to reduce their risk of earthquake damage.***				
PRIORITY: Innovation. Lead program development to furnish incentives for residential retrofits and other mitigation measures, and sponsor and lead a building-code-related guideline-development project to extend code-based seismic retrofits to California's single-family houses.				
1. Complete analysis of **hazard reduction discount.** *Also see **Goal Two: Mitigate Priority: Research 1. below**	Ongoing	Continue re-evaluation of hazard reduction discount targeting a more robust mitigation discount.	Shawna Ackerman Janiele Maffei Bruce Patton	EQECAT PEER ATC
2. Work with earthquake mitigation stakeholders to earn their consideration of **earthquake insurance as a component of financial preparedness.**	Ongoing	Continue relationships in support of mitigation program roll-out	Janiele Maffei Chris Nance	Advisory Panel Engineering groups Consumer groups
3. Continue roll-out of the residential *Earthquake Brace + Bolt* program.	Ongoing	Completed pilot efforts in Oakland and Los Angeles and evaluated results—now moving to plan and expand, in stages, throughout California.	Janiele Maffei	CRMP Advisory Panel
4. Work with federal, state, and private organizations to obtain pre- and post-event **funding for earthquake-loss-mitigation programs**.	Ongoing	The CRMP's *Earthquake Brace + Bolt* program is expressly referred to in the FEMA-approved *State of California Multi-Hazard Mitigation Plan* (which supports state and other eligibility for disaster recovery assistance and mitigation funding).	Janiele Maffei	Advisory Panel Participating insurers Other public and private sources
PRIORITY: Research. Through careful, fully collaborative needs assessment, support and commission original scientific and engineering research, to build among all relevant communities a richer understanding of expected earthquake damage to residential structures.				
1. Retain multidisciplinary research team to monetarily quantify damage reduction from selected retrofits to support CEA's rates and rating plan for policyholders who mitigate their dwellings.	Ongoing	Request for Proposal and Qualifications to hire research team to go out in the beginning of the year. Team to be hired by mid-year. Work will be a multi-year project.	Janiele Maffei Bruce Patton Shawna Ackerman	Retrofit Damage Reduction Program Contractor and team Badie Rowshandel CGS/CEA Advisory Panel Participating Insurers Reinsurers

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
2. Conduct contents-mitigation programs that reinforce message-research results and complement *Earthquake Brace + Bolt* program.	Ongoing	CRMP pilot plan includes providing information about contents-mitigation.	Janiele Maffei	CRMP

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
3. Explore joining forces with relevant business interests in offering financial products to support consumer participation in the *Earthquake Brace + Bolt* program.	Ongoing	Current development of retrofit Pre-Standard, essential to securing additional financial products for mitigation.	Janiele Maffei	CEA Mitigation Program and CRMP Contractors Advisory Panel
PRIORITY: Technology. Use technology to promote innovative residential earthquake-loss-mitigation measures, demonstrating their value in helping families secure their possessions and protect their homes.				
1. Develop and support website for mitigation program	Ongoing	Initial version of website deployed in pilot. Develop a higher Mitigation profile on the CEA and California Rocks Web sites.	Janiele Maffei	IT, Operations, Communications

GOAL THREE: Insure. ***Help Californians understand—and quantify and actively manage, using CEA insurance products—their risk of financial loss from damaging earthquakes.***

PRIORITY: Innovation. Develop, create, and—collaboratively, with CEA participating insurers—implement and distribute programs and products that enhance the effectiveness of the CEA and its participating insurers in helping Californians understand and manage their earthquake risk.

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
1. Explore **enhancements to CEA insurance products.**	Ongoing	CEA staff is continuously and actively reviewing CEA products—the review includes market research and analysis of policyholder purchasing patterns, the results of which will guide and allow enhancement of future product designs.	Bob Stewart Mitch Ziemer Shawna Ackerman	Participating insurers Advisory Panel
2. Continue to study and update **financial alternatives.** • Investigate financial structures, instruments of domestic and international catastrophe programs. • Research and monitor global financial markets for new financing vehicles and techniques. Finalize drafting and implementation of robust compliance guidelines to assist CEA staff and Board in	Ongoing	Staff to collaborate with outside financial experts and expert colleagues to find and develop financial alternatives for cost-effective claim-paying capacity.	Tim Richison Danny Marshall	CEA Financial Advisor Outside financial and legal experts

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
understanding, planning for, and working to mitigate financing and related risks.				
3. Pursue legislative activity on federal and state levels.	Ongoing	In California, pursue passage of legislation to help lower rates, increase coverage and assist Californians who want to mitigate their homes.	Glenn Pomeroy Danny Marshall Susie Hernandez Bruce Patton Janiele Maffei Shawna Ackerman Tim Richison	Co-sponsors Consultants/legal experts Research organizations
PRIORITY: Research. Develop, advocate, and lead targeted research to enhance the effectiveness of the CEA and its business partners in helping Californians understand and manage their earthquake risk.				
1. Complete **rate analysis for all products.**	Ongoing	Rate analysis is ongoing, with comprehensive analyses annually, at mid-year and year-end.	Bob Stewart Shawna Ackerman Mitch Ziemer	
2. Continue working with CEA chief actuary to **update CEA's Dynamic Financial Analysis Model and Financial Model** and reflect new financial alternatives and products.	Ongoing	Continue to enhance CEA's DFA model.	Tim Richison Shawna Ackerman	
3. Conduct **research on CEA policyholders** to better understand the types of Californians who are purchasing earthquake insurance.	Ongoing	CEA will produce ongoing "SWOT" analyses – recognizing its strengths, weaknesses, opportunities, and threats.	Chris Nance	Advisory Panel
PRIORITY: Technology. Implement and continuously improve CEA insurance solutions to support and provide value to participating insurers, agents and producers, and policyholders.				
1. Implement California Department of Insurance approved rate and form filing for policies effective on or after January 1, 2016.	By September 30, 2015, to ensure systems readiness	IT Project Portfolio - 2015	Bob Stewart Shawna Ackerman Mitch Ziemer	IT

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
			Todd Coombes	
2. Zip Code Management Solution	TBD	IT Project Portfolio – 2015	Bob Stewart Mitch Ziemer Todd Coombes	IT
3. Place business from new PI in EPICenter (Hyundai Marine and Fire); reinstate GuideOne as active PI.	Second Quarter and Third Quarter, respectively	IT Project Portfolio - 2015	Bob Stewart Tim Richison Todd Coombes	IT
4. Reinsurance Management System	TBD	IT Project Portfolio - 2015	Tim Richison	IT
5. CEA Policy Review and Implementation in PolicyTech	TBD	IT Project Portfolio – 2015	Danny Marshall	IT
6. Compliance Hotline	TBD	IT Project Portfolio – 2015	Danny Marshall	IT
7. Enterprise Content Management System (ECMS)	TBD	IT Project Portfolio – 2015	Danny Marshall	IT
8. Virtual Desktop Infrastructure (VDI) Implementation	TBD	IT Project Portfolio – 2015	Todd Coombes	IT
9. Litigation-Management System	TBD	IT Project Portfolio – 2015	Danny Marshall	IT
10. Outside-Counsel-Management System	TBD	IT Project Portfolio – 2015	Danny Marshall	IT
11. HR System Implementation	July 2015	IT Project Portfolio - 2015	Bob Stewart Silvia Fong	IT; CPS HR Consultants

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
Governance and Departmental Effectiveness. Organizational governance opportunities and departmental goals and initiatives to maximize CEA's mission effectiveness.				
Governance.				
Governing Board.				
1. Collaborate with Board and other stakeholders to analyze and **develop action plan relating to organizational and staffing analyses.**	Ongoing	Areas of focus will include building a new business model, augmenting CEA's HR capabilities, adding staff members who possess required functional expertise, adding a Chief Risk Officer, and other recommendations resulting from the analysis.	Executive Staff	Governing Board Advisory Panel Participating Insurers
2. Establish and periodically report on CEA **performance metrics**.	Ongoing	Initial draft of performance metrics to be reviewed.	Executive Staff	Governing Board Advisory Panel
Advisory Panel.				
1. Work with the Advisory Panel as it optimizes its appropriate **role**.	Process	Advisory Panel members periodically review CEA Business Implementation Plan and respond to staff requests for Panel-member participation.	Danny Marshall	Advisory Panel
2. Update **Advisory Panel Handbook**.	Process (periodic)		Danny Marshall	
Staff.				
1. **Review CEA governance documents,** including Plan of Operations and the Procedures and Accounting Manual, to ensure documents are up-to-date.	Process	CEA governance documents are updated periodically, to reflect regulatory revisions and changes in operating procedures. The review will aid process improvements. Proposed updates to the Procedures and Accounting Manual are under review.	Bob Stewart Danny Marshall Mitch Ziemer	All CEA department heads
2. **Inform external organizations** about CEA.	Ongoing		Executive Staff	Advisory Panel
3. Participate in **conferences and events** that	Ongoing		Executive Staff	

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
further CEA goals.				
4. Continue to **strengthen communication with external stakeholders** (such as Legislative and Congressional staff; consumer groups; participating insurers; federal, state and regional agencies; and academic resources).	Ongoing		Executive Staff	Advisory Panel
<u>Departmental Effectiveness</u>.				
Communications.				
1. **Identify measures to track and gauge marketing effectiveness (metrics):** • Refine year-round media plan: paid-media negotiations and earned-media outreach. • Use of media-buying and tracking software. • Develop integrated business-intelligence systems to target and track marketing and sales programming: -Marketing/sales funnel, -Content management, and -Agent/consumer relations.	Ongoing	CEA will use software and subscriptions to reconcile media buys, develop business-intelligence systems to facilitate marketing and sales decisions, and track number and characteristics of people considering earthquake-insurance purchase.	Chris Nance	Communications Plan Contractor Advisory Panel
2. **Expand CEA agent/producer relations:** • Meet biannually with participating-insurer marketing liaisons to share MVP updates. • Coordinate agent training through participating-insurer liaisons. • Use technology to deliver agent-training more efficiently. • Enhance premium-calculator options on CEA website. • Provide agents/producers with updated	Ongoing	CEA will share updates and collect meaningful input from participating insurers' marketing liaisons.	Chris Nance	Communications Plan Contractor Advisory Panel

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
product information. • Continuously evaluate participating insurers' use of CEA marketing materials.				
3. **Further develop product-specific marketing strategies.**	Ongoing		Chris Nance Mitch Ziemer Shawna Ackerman	Advisory Panel
Finance.				
1. Propose and secure Board approval of **2016 CEA reinsurance and risk-transfer programs.**	December 2015	Work with CEA reinsurance-intermediary team to plan and achieve required risk-transfer limits at lowest effective cost.	Tim Richison	CEA Independent Financial Advisor Reinsurance Intermediaries
2. Annual **rating-agency reviews** 3. Financial-strength review with A.M. Best 4. Bond-rating review with Moody's and Fitch.	Ongoing	Work with rating agencies to maintain CEA ratings, including present financial strength rating from A.M. Best of "A-minus (Excellent)" and present bond rating of A from Fitch and A3 from Moody's.	Tim Richison	CEA Independent Financial Advisor
5. Evaluate **CEA's issuing catastrophe bonds** as alternative risk-transfer.	Ongoing	Cat-bond team is drawn from STO and outside experts in cat bonds and capital markets; includes work with CEA financial advisor.	Tim Richison ART Subcommittee Danny Marshall Joe Zuber	CEA Independent Financial Advisor CEA Cat-Bond Team
6. Evaluate effects of **NAIC Model Audit Rule** on the CEA.	Ongoing	Continue reviewing documentation and attending training to evaluate and decide on any changes necessary to comply with NAIC's Model Audit Rule.	Tim Richison	
7. Complete and continue with **investment compliance project.**	Ongoing	Procured investment-compliance software and team is working with the contractor to enhance the software's automatic daily portfolio evaluation. Investment-Compliance Committee Charter under management review; Committee has met and is discussing policy and charter provisions.	Danny Marshall Niel Hall Rick Contreras Tim Richison	Investment-Compliance Consultant CEA Financial Advisor

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
8. Integrate NAIC Model Audit Rule into CEA's financial and compliance systems.	December 2016	Develop implementation plan for transition, provide training to affected CEA personnel and complete implementation of new accounting rules by year-end 2016.	Tim Richison	
Information Technology.				
1. Successfully manage and complete **2015 IT Project Portfolio**	December 2015	Proposed 2015 IT Project Portfolio is ready for Governing Board approval	Todd Coombes	PMO Applications Development Enterprise Architecture
2. Fully detail and document all IT **strategies**, **policies**, and **processes**	October 2015	Publish documented IT strategies, policies, and processes for all areas of IT in a form that is accessible to all CEA staff. Use change-control for modifications, going forward.	Todd Coombes	IT Governance PMO Applications Development Enterprise Architecture Infrastructure
3. Use IT metrics and reporting package to improve transparency and effectiveness	May 2015	Establish recurring IT metrics and reporting meetings internally within IT to identify continuous improvement opportunities, and with business partners, to communicate progress and value.	Todd Coombes	IT Governance PMO Applications Development Enterprise Architecture Infrastructure
4. Define IT and PMO **risk management** practices	July 2015	Develop, document, and publish IT and PMO risk-management practices that coincide with PMO project-management best practices.	Todd Coombes	IT Governance PMO
Legal and Compliance.				
1. Establish **records management and retention program.** • Continue with phased implementation of document-retention system	Ongoing	Implementation continuing, based on recommendations from contracted consultant. Actions beginning with review and appropriate disposition of departmental records; will progress to implementing automated system for records and retention management.	Danny Marshall Niel Hall Rick Contreras Todd Coombes	
2. **Complete internal audit program review and conduct internal-audit program**.	Ongoing	CEA internal-audit program ongoing, under the direction of CEA's chief auditor.	Danny Marshall Rick Contreras	PwC, as needed

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
Mitigation.				
1. Ensure CEA mitigation programs are **evaluated for program- and cost-effectiveness.**	Ongoing	Current *Earthquake Brace + Bolt* roll-out includes detailed evaluation and quality-control processes.	Janiele Maffei	CRMP
2. Support roll-out of CRMP **mitigation program**	Ongoing	Support program and stakeholders to ensure successful roll-out.	Janiele Maffei	CRMP
3. Participate and fund conferences, seminars, and workshops to support collaborative mitigation efforts.	Ongoing	Attend guidelines, research, mitigation workshops, and conferences.	Janiele Maffei	CRMP FEMA
4. Explore and establish relationships with other recognized natural-hazard mitigation opinion leaders and stakeholders.	Ongoing	Collaboration with FEMA: FEMA P-50 completed and Retrofit Guidelines (Pre-standard) process well underway.	Janiele Maffei Bruce Patton	Advisory Panel
Operations.				
1. **CEA Workforce Planning Project.** Collaborate with CEA Governing Board and other stakeholders to analyze and develop action plan for changed organizational structure and staffing.	Ongoing	Analysis is ongoing, and action plan is being prepared for Board consideration.	Glenn Pomeroy Bob Stewart Danny Marshall	
2. **Implement California Department of Insurance-approved rate and form filing**.	By September 30, 2015, to ensure system readiness	Rate and form filing submitted to the California Department of Insurance (CDI) on December 17, 2014 requesting changes to take effect for policies effective on or after January 1, 2016. Implementation subject to CDI approval.	Bob Stewart Todd Coombes Mitch Ziemer	IT Participating Insurers
3. **Rate Analysis -** complete rate analysis for all products.	Mid-year and Year-end 2015	Rate analysis is ongoing.	Bob Stewart Shawna Ackerman Mitch Ziemer	
4. **CEA insurance products** – explore	Ongoing	CEA staff is continuously and actively	Bob Stewart	

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
enhancements – including new products.		reviewing CEA products – the review includes market research and analysis of policyholders' purchasing patterns, the results of which will guide and allow enhancement of future product designs.	Shawna Ackerman Mitch Ziemer	
5. **Business requirements -** Support development of business requirements to support identification, development, and implementation of data system fixes and enhancements.	Ongoing	CEA Insurance Operations and Information Technology staffs are collaborating to implement refinements to EPICenter to maximize system effectiveness and promote ease of doing business with the CEA.	Bob Stewart Todd Coombes Mitch Ziemer	
6. **CEA participating insurer performance -** Conduct a semi-annual review of each CEA participating insurers performance relating to policy sales, retention, and other relevant measures.	Ongoing	CEA Insurance Operations staff to meet with appropriate staff of participating insurers to review CEA performance based on the insurer's mid-year and year-end CEA Book of Business Report. Staff will also seek insight into insurer-specific initiatives that affect CEA operations, to ensure appropriate CEA planning and goal-setting.	Bob Stewart Mitch Ziemer	
7. **New Participating Insurers** - Effectively collaborate with insurers who are evaluating becoming a CEA participating insurer – lead the implementation process for those who choose to participate.	Ongoing	CEA Insurance Operations staff will support and provide interested insurers and new applicants with information necessary to evaluate their potential CEA participation, and will seek information, including data, to enable the CEA to complete its own analysis of each applicant's participation.	Bob Stewart Mitch Ziemer	
8. Business Educators – Train CEA staff and participating insurers based on insurance-industry expertise, related education, and CEA work experience.	Ongoing	CEA Insurance Operations staff will provide other CEA staff members with general insurance training to effectively support the CEA's overall operations; Staff will continue to provide participating-insurer staff (including adjusters) with CEA-specific training. Insurance Operations staff is represented on numerous cross-functional CEA work teams to support implementation of programming and initiatives.	Bob Stewart Mitch Ziemer Trudy Moore	

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources
9. CEA earthquake-response procedures - Review, compare, and update internal protocols for CEA earthquake-response procedures.	Ongoing	Support collaboration among CEA staff and conduct table-top and other exercises to ensure response procedures are documented, current, and incorporate key resources such as the CEA's proprietary EARLE system.	Bob Stewart Mitch Ziemer	
10. Office expansion.	June 2015	Construction scheduled to begin in early 2015, with occupancy targeted for no later than May 2015.	Bob Stewart	Sacramento Equities REIT

Business Activity	Date	Status/Comments	Sponsor/ Owner	Other Resources

Abbreviations:

ATC	Applied Technology Council
Cal OES	California Governor's Office of Emergency Services
CDI	California Department of Insurance
CEA	California Earthquake Authority
CEA-MRT	California Earthquake Authority – Multidisciplinary Research Team
CGS	California Geological Survey
CRMP	California Residential Mitigation Program
EPICenter	CEA database
FEMA	Federal Emergency Management Agency
NAIC	National Association of Insurance Commissioners
NGA	Next-Generation Attenuation
PEER	Pacific Earthquake Engineering Research Center
PwC	PricewaterhouseCoopers
SCEC	Southern California Earthquake Center
STO	California State Treasurer's Office
TBD	To be determined
UCERF	Uniform California Earthquake-Rupture Forecast

Governing Board Memorandum

December 17, 2014

Agenda Item 20: 2015 CEA Budget: Insurance Services

Recommended Action: Approve 2015 Insurance Services Budget

Background:

Each year, the CEA staff prepares and submits to the Governing Board a proposed annual budget, based on all anticipated expenses for the next calendar year.[1] This year, the annual budget is presented in association with the proposed new 2015 CEA Business Implementation Plan.

Analysis:

2015 Insurance Services Budget

Staff has prepared three attachments to assist the Board in comparing and analyzing the 2014 and 2015 budgets for insurance services.

- **Attachment A: Budgeted Expenditures and Actual Expenditures – 2014 Budget Year**
  - This attachment shows:
    a. The December (2013) Board-approved Budget for 2014;
    b. 2014 budget adjustments throughout the year;
    c. 2014 budget augmentations throughout the year;
    d. augmented/adjusted approved 2014 budget;
    e. actual expenses through October 31, 2014;
    f. projected expenses for the months of November and December 2014;
    g. actual and projected expenses at December 31, 2014;
    h. comparison of augmented, adjusted, approved budget to actual and projected expenses at December 31, 2014; and
    i. percentage of used augmented and adjusted approved 2014 budget.

- **Attachment B: Proposed 2015 Insurance Services Budget**
  - NOTE: Statutory provisions pertaining to CEA operating expenses were amended by legislation that becomes effective on January 1, 2015. Items to be excluded from CEA operating expenses are spelled out in the new law, which (in effect)

[1] The CEA fiscal year is the calendar year.

changes certain items of operating-expense inclusion, when compared to past CEA practices. The new operating-expense cap is six percent.[2]

- Attachment B shows the proposed 2015 insurance services budget, constructed as needed to support the 2015 CEA Business Implementation Plan and in compliance with new statutory provisions pertaining to CEA operating expenses.

- **Attachment C: Approved 2014 Budget Compared to Proposed 2015 Budget**
  - Attachment C compares the approved 2014 CEA budget to the proposed 2015 CEA budget—the format purposes replicates the 2014 format, to facilitate the comparison.

Summary of Proposed 2015 CEA Operating Expenses/Expense Cap
[Projected operating expense compared to projected statutory cap]

The projected operating-expense portion of the proposed 2015 budget ($23,863,305) is less than the projected 6% cap of $37,010,624:

Projected 2015 written premium:	$ 616,843,736
Statutory operating-expense cap 2015 (percentage)	6%
Statutory operating-expense cap 2015 (dollars)	$ 37,010,624
Proposed 2015 operating expense budget	$ 23,863,305
Amount by which 6% cap exceeds proposed budget	$ 13,147,319

Recommendation:

Staff recommends the following Board actions:

- Approve the proposed 2015 Insurance Services budget; and
- direct staff to operate CEA business operations within the total approved budget amounts.

[2] California Insurance Code section 10089.6, subdivisions (c) and (d), as amended by AB 2064.

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Budgeted Expenditures and Actual Expenditures
2014 Budget Year

	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f)	(g) (g=e+f)	(h) (h=d-g)	(i) (i=g/d)
	Approved 2014 Budget 1/1/2014	**Adjustments thru 12/31/2014**	**Augmentations thru 12/31/2014**	**2014 Budget after Augmentations and Adjustments**	**Actual Expenditures as of 10/31/14**	**Projected Expenditures 11/1/2014 to 12/31/2014**	**Actual and Projected Expenses at 12/31/14**	**Augmented & Adjusted Approved Budget (d) vs. Actual & Projected Expenses (g) at 12/31/14**	**Percentage used of Augmented & Adjusted Approved 2014 Budget**
Salaries & Benefits	$ 11,679,999	$ -	$ -	$ 11,679,999	$ 8,478,051	$ 1,806,751	$ 10,284,802	$ 1,395,197	88.05%
Rent	753,615	20,000	-	773,615	624,666	146,055	770,721	2,894	99.63%
Travel	405,987	-	-	405,987	263,813	60,940	324,753	81,234	79.99%
Non-paid Consultant Travel	2,000	-	-	2,000	-	-	-	2,000	0.00%
Telecommunications	181,140	-	-	181,140	149,664	29,460	179,124	2,016	98.89%
Training	285,719	-	-	285,719	149,593	51,382	200,975	84,744	70.34%
Insurance	167,500	50,000	-	217,500	163,381	53,939	217,320	180	99.92%
Board/Panel Services	35,000	-	-	35,000	10,251	7,827	18,078	16,922	51.65%
Administration & Office (Printing & Stationery, Postage)	1,268,015	(645,000)	-	623,015	254,058	209,988	464,046	158,969	74.48%
Other Administrative Services	34,885	-	-	34,885	25,016	8,059	33,075	-	94.81%
Furniture/Equipment	47,600	-	-	47,600	29,981	17,387	47,368	232	99.51%
EDP Hardware/Software	689,665	470,000	-	1,159,665	915,004	243,315	1,158,319	1,346	99.88%
Dept of Insurance Examination	50	105,000	-	105,050	3,450	99,890	103,340	1,710	98.37%
Total Operating Expenses	**$ 15,551,175**	**$ -**	**$ -**	**$ 15,551,175**	**$ 11,066,928**	**$ 2,734,993**	**$ 13,801,921**	**$ 1,747,444**	**88.75%**
Consulting Services									
Claims	10,000	-	-	10,000	10,000	-	10,000	-	100.00%
Compliance	150,000	-	-	150,000	-	10,000	10,000	140,000	6.67%
Executive Recruiting	75,000	-	-	75,000	-	-	-	75,000	0.00%
Financial Consulting	260,000	-	-	260,000	113,174	96,826	210,000	50,000	80.77%
Government Relations	190,000	-	-	190,000	94,500	76,500	171,000	19,000	90.00%
Human Resources	395,000	-	-	395,000	82,031	57,969	140,000	255,000	35.44%
Information Systems	145,000	-	-	145,000	23,757	95,000	118,757	26,243	81.90%
Internal Audit	50,000	-	-	50,000	-	10,000	10,000	40,000	20.00%
Investment Compliance	40,000	-	-	40,000	-	2,500	2,500	37,500	6.25%
Public Relations	100,000	-	-	100,000	19,571	80,429	100,000	-	100.00%
Other Consulting Services	190,000	-	-	190,000	20,825	115,637	136,462	53,538	71.82%
Total Consulting Services	$ 1,605,000	$ -	$ -	$ 1,605,000	$ 363,858	$ 544,861	$ 908,719	$ 696,281	56.62%

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Budgeted Expenditures and Actual Expenditures
2014 Budget Year

	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f)	(g) (g=e+f)	(h) (h=d-g)	(i) (i=g/d)
	Approved 2014 Budget 1/1/2014	**Adjustments thru 12/31/2014**	**Augmentations thru 12/31/2014**	**2014 Budget after Augmentations and Adjustments**	**Actual Expenditures as of 10/31/14**	**Projected Expenditures 11/1/2014 to 12/31/2014**	**Actual and Projected Expenses at 12/31/14**	**Augmented & Adjusted Approved Budget (d) vs. Actual & Projected Expenses (g) at 12/31/14**	**Percentage used of Augmented & Adjusted Approved 2014 Budget**
Contracted Services									
Agent Services	70,000	-	-	70,000	43,246	-	43,246	26,754	61.78%
Audit Services	109,000	-	-	109,000	92,500	16,500	109,000	-	100.00%
IT Services[1]	2,591,005	-	273,466	2,864,471	1,231,014	1,427,792	2,658,806	205,665	92.82%
Legal Services-Claims Counsel	300,000	-	-	300,000	-	50,000	50,000	250,000	16.67%
Legal Service - Non-Claims	7,355,000	-	-	7,355,000	1,620,182	2,909,805	4,529,987	2,825,013	61.59%
Marketing Services	8,878,000	-	-	8,878,000	2,887,891	5,971,979	8,859,870	18,130	99.80%
Modeling Services	711,000	-	-	711,000	484,750	226,250	711,000	-	100.00%
Rating Agencies	197,350	-	-	197,350	197,300	-	197,300	50	99.97%
Staffing Services - Support and Admin	3,106,214	-	-	3,106,214	2,365,915	500,865	2,866,780	239,434	92.29%
Other Contracted Services	50,000	-	-	50,000	-	3,000	3,000	47,000	6.00%
Total Contracted Services	$ 23,367,569	$ -	$ 273,466	$ 23,641,035	$ 8,922,798	$ 11,106,191	$ 20,028,989	$ 3,612,046	84.72%
Research	200,000	-	-	200,000	198,099	-	198,099	1,901	99.05%
Participating Insurer Commissions	56,742,287	-	-	56,742,287	51,118,918	9,720,461	60,839,379	(4,097,092)	107.22%
Participating Insurer Operating Costs	17,533,367	-	-	17,533,367	15,774,342	3,003,622	18,777,964	(1,244,597)	107.10%
Investment Expenses	2,422,156	-	-	2,422,156	1,846,896	575,260	2,422,156	-	100.00%
Financing Expenses[2]	5,079,788	-	8,350,000	13,429,788	4,734,929	8,694,859	13,429,788	-	100.00%
Risk Transfer	222,221,550	-	-	222,221,550	164,762,458	57,459,092	222,221,550	-	100.00%
Total Expenditures	**$ 344,722,892**	**$ -**	**$ 8,623,466**	**$ 353,346,358**	**$ 258,789,226**	**$ 93,839,339**	**$ 352,628,565**	**$ 715,982**	**99.80%**

[1]Augmentation due to board approved upgrade in CEA IT infrastructure.

[2]Augmentation for 2006 bonds interest expenses and 2014 bonds transaction expenses

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Proposed 2015 Budget

	2015 Insurance Services Budget
Statutory Expenses	
Human Resources:	
Compensation and Benefits	16,670,520
Travel	472,338
Other	1,094,827
Board Meetings	33,000
Administration & Office	1,198,429
EDP Hardware	115,270
EDP Software	1,204,490
Information Technology	1,255,830
Telecommunications	241,714
Rent/Lease	876,749
Compliance	10,000
Government Affairs	298,000
Insurance	189,138
Internal Audit	50,000
Intervener Fees	-
Other	3,000
Regulatory Expenses	150,000
Total Statutory Expenses	23,863,305
Non-Statutory Expenses	
Audit Services	109,000
Capital Market	9,400,500
Claims	10,000
Loans	-
Grants	-
Investment Services	3,174,856
Legal Services	6,967,920
Loss-Modeling	961,500
Marketing Servies	11,179,355
Producer Compensation	61,684,374
Participating Insurer Operating Costs	19,060,471
Seismic Related Research	100,000
Engineering Related Research	250,000
Risk Transfer	210,213,580
Total Budgeted Expenditures	346,974,861

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Budget Comparison
2014 Budget to 2015 Budget

\

	(a)	(b)	(c) (c=b-a)	(d) (d=c/a)
	Final 2014 Budget 12/31/2014	**Proposed 2015 Budget 2014 Format***	**Difference**	**% Change**
Salaries & Benefits	$ 11,679,999	$ 12,977,914	$ 1,297,915	11%
Rent	753,615	778,749	25,134	3%
Travel	405,987	469,838	63,851	16%
Non-paid Consultant Travel	2,000	2,500	500	25%
Telecommunications	181,140	241,714	60,574	33%
Training	285,719	421,545	135,826	48%
Insurance	167,500	189,138	21,638	13%
Board/Panel Services	35,000	33,000	(2,000)	(6%)
Administration & Office				
(Printing & Stationery, Postage)	1,268,015	731,006	(537,009)	(42%)
Other Administrative Services	34,885	4,305	(30,580)	(88%)
Furniture/Equipment	47,600	497,400	449,800	>100%
EDP Hardware/Software	689,665	1,319,760	630,095	91%
Dept of Insurance Examination	50	150,000	149,950	>100%
Total Operating Expenses	**$ 15,551,175**	**$ 17,816,869**	**$ 2,265,694**	**15%**
Consulting Services				
Actuarial	-	-	-	0%
Claims	10,000	10,000	-	0%
Compliance	150,000	10,000	(140,000)	(93%)
Executive Recruiting	75,000	100,000	25,000	33%
Financial Consulting	260,000	391,000	131,000	50%
Government Relations	190,000	298,000	108,000	57%
Human Resources	395,000	600,000	205,000	52%
Information Systems	145,000	-	(145,000)	(100%)
Internal Audit	50,000	50,000	-	0%
Investment Compliance	40,000	40,000	-	0%
Public Relations	100,000	-	(100,000)	(100%)
Other Consulting Services	190,000	-	(190,000)	(100%)
Total Consulting Services	1,605,000	$ 1,499,000	(106,000)	(7%)
Contracted Services				
Agent Services	70,000	197,600	127,600	>100%
Audit Services	109,000	109,000	-	0%
IT Services	2,864,471	2,047,030	(817,441)	(29%)
Legal Services-Claims Counsel	300,000	300,000	-	0%
Legal Service - Non-Claims	7,355,000	6,540,000	(815,000)	(11%)
Marketing Services	8,878,000	10,909,255	2,031,255	23%
Modeling Services	711,000	961,500	250,500	35%
Rating Agencies	197,350	203,200	5,850	3%
Staffing Services - Support and Admin	3,106,214	3,732,606	626,392	20%
Other Contracted Services	50,000	-	(50,000)	(100%)
Total Contracted Services	23,641,035	$ 25,000,191	1,359,156	6%
Research	200,000	350,000	150,000	75%
Participating Insurer Commissions	56,742,287	61,684,374	4,942,087	9%
Participating Insurer Operating Costs	17,533,367	19,060,471	1,527,104	9%
Investment Expenses	2,422,156	2,366,656	(55,500)	(2%)
Financing Expenses	13,429,788	9,197,300	(4,232,488)	(32%)
Risk Transfer	222,221,550	210,000,000	(12,221,550)	(5%)
Total Expenditures	**353,346,358**	**$ 346,974,861**	**(6,371,497)**	**(2%)**

* In this view, 2015 budget numbers are categorized and shown using 2014-CEA-budget format.

Governing Board Memorandum

December 17, 2014

Agenda Item 21:	2015 CEA Mitigation Budget
Recommended Action:	Approve 2015 Mitigation Budget

Background:

The CEA staff has prepared and now submits to the Governing Board the annual CEA mitigation budget, based on all anticipated mitigation-related expenses for the 2015 calendar year[1]—the document is associated with the proposed new 2015 CEA Business Implementation Plan.

Analysis:

2015 Mitigation Budget

Staff has prepared three attachments to assist the Board in analyzing the 2015 mitigation budget and comparing it to the 2014 mitigation budget:

- **Attachment A: Budgeted Expenditures and Actual Expenditures – 2014 Budget Year**
  - This attachment shows:
    a. the December 2013 Board-approved Budget for calendar year 2014;
    b. 2014-budget adjustments during the year;
    c. 2014-budget augmentations during the year;
    d. the 2014 mitigation budget, as adjusted and approved;
    e. actual 2014 mitigation expenses (through October 31, 2014—latest available figures);
    f. projected expenses for November and December 2014;
    g. total actual and projected expenses at December 31, 2014;
    h. comparison of augmented, adjusted approved budget to actual and projected expenses at December 31, 2014; and
    i. percentages of augmented, adjusted approved 2014 budget spent.

- **Attachment B: Proposed 2015 Mitigation Budget**
  - This attachment shows the proposed 2015 mitigation budget, constructed as necessary to fulfill mitigation-related business responsibilities and operations.

[1] The CEA fiscal year is the calendar year.

- **Attachment C: Approved 2014 Mitigation Budget Expenses Compared to Proposed 2015 Mitigation Budget**
    - This attachment shows the approved 2014 budget and compares it to the proposed 2015 budget.

Recommendation:

Staff recommends that the Board take the following actions:

- Approve the proposed 2015 mitigation budget; and
- direct staff to operate the CEA's mitigation-related business activities within the approved budget amounts.

CALIFORNIA EARTHQUAKE AUTHORITY
Mitigation
Budgeted Expenditures and Actual Expenditures
2014 Budget Year

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
				(d=a+b+c)			(g=e+f)	(h=d-g)	(i=g/d)
	Approved 2014 Budget 1/1/2014	**Adjustments thru 12/31/2014**	**Augmentations thru 12/31/2014**	**2014 Budget after Augmentations and Adjustments**	**Actual Expenditures as of 10/31/14**	**Projected Expenditures 11/1/2014 to 12/31/2014**	**Actual and Projected Expenses at 12/31/14**	**Augmented & Adjusted Approved Budget (d) vs. Actual & Projected Expenses (g) at 12/31/14**	**Percentage used of Augmented & Adjusted Approved 2014 Budget**
Salaries & Benefits	$ 647,379	$ -	$ -	$ 647,379	$ 317,533	$ 81,082	$ 398,615	$ 248,764	61.57%
Rent	33,120	-	-	33,120	26,271	4,341	30,612	2,508	92.43%
Travel	50,000	-	-	50,000	20,971	7,788	28,759	21,241	57.52%
Non-paid Consultant Travel	5,000	-	-	5,000	-	-	-	5,000	0.00%
Telecommunications	10,800	-	-	10,800	5,355	1,577	6,932	3,868	64.19%
Training	22,880	-	-	22,880	10,005	500	10,505	12,375	45.91%
Insurance	-	-	-	-	-	-	-	-	0.00%
Board/Panel Services	-	-	-	-	-	-	-	-	0.00%
Administration & Office (Software Maint & Support, Printing & Stationery, Postage)	113,600	(1,000)	-	112,600	29,324	12,475	41,799	70,801	37.12%
Furniture/Equipment	1,000	-	-	1,000	389	-	389	611	38.90%
EDP Hardware/Software	-	1,000	-	1,000	139	-	139	861	0.00%
Total Operating Expenses	**$ 883,779**	**$ -**	**$ -**	**$ 883,779**	**$ 409,987**	**$ 107,763**	**$ 517,750**	**$ 366,029**	**58.58%**
Consulting Services									
Other Consulting Services	100,000	-	-	100,000	-	-	-	100,000	0.00%
Total Consulting Services	$ 100,000	$ -	$ -	$ 100,000	$ -	$ -	$ -	$ 100,000	0.00%
Contracted Services									
Legal Services - Non-Claims	50,000	-	-	50,000	-	-	-	50,000	0.00%
Mitigation Projects	850,000	-	-	850,000	106,264	259,128	365,392	484,608	42.99%
Staffing Services - Support and Admin	222,436	-	-	222,436	75,731	20,003	95,734	126,702	43.04%
Other Contracted Services	50,000	-	-	50,000	-	-	-	50,000	0.00%
Total Contracted Services	$ 1,172,436	$ -	$ -	$ 1,172,436	$ 181,995	$ 279,131	$ 461,126	$ 711,310	39.33%
CRMP Contribution	-	-	-	-	-	-	-	-	0.00%
Investment Expenses	16,800	-	-	16,800	17,209	4,141	21,350	(4,550)	127.08%
Total Expenditures	**$ 2,173,015**	**$ -**	**$ -**	**$ 2,173,015**	**$ 609,191**	**$ 391,035**	**$ 1,000,226**	**$ 1,172,789**	**46.03%**

CALIFORNIA EARTHQUAKE AUTHORITY
Mitigation
Proposed 2015 Budget

	2015 Mitigation Budget
Operating Expenses	
Human Resources:	
Compensation and Benefits	1,219,169
Travel	47,500
Other	19,000
Board Meetings	-
Administration & Office	69,600
EDP Hardware	-
EDP Software	-
Information Technology	-
Telecommunications	1,500
Rent/Lease	700
Compliance	-
Government Affairs	-
Insurance	-
Internal Audit	-
Intervener Fees	-
Other	-
Regulatory Expenses	-
Total Operating Expenses	1,357,469
Other Expenses	
Audit Services	-
Capital Market	-
Claims	-
Loans	-
Grants	-
Investment Services	28,400
Legal Services	50,000
Loss-Modeling	-
Marketing Servies	38,000
Producer Compensation	-
Participating Insurer Operating Costs	-
Seismic Related Research	19,000
Engineering Related Research	1,019,000
Risk Transfer	-
Total Budgeted Expenditures	2,511,869

CALIFORNIA EARTHQUAKE AUTHORITY
Mitigation
Budget Comparison
2014 Budget to 2015 Budget

	(a)	(b)	(c) (c=b-a)	(d) (d=c/a)
	Final 2014 Budget 12/31/2014	**Proposed 2015 Budget 2014 Format***	**Difference**	**% Change**
Salaries & Benefits	$ 647,379	$ 1,219,169	$ 571,790	88%
Rent	33,120	700	(32,420)	(98%)
Travel	50,000	45,000	(5,000)	(10%)
Non-paid Consultant Travel	5,000	2,500	(2,500)	(50%)
Telecommunications	10,800	1,500	(9,300)	(86%)
Training	22,880	19,000	(3,880)	(17%)
Insurance		-	-	0%
Administration & Office			-	0%
(Software Maint & Support, Printing & Stationery, Postage)	113,600	69,600	(44,000)	(39%)
Furniture/Equipment	1,000	-	(1,000)	(100%)
EDP Hardware/Software	-	-	-	0%
Total Operating Expenses	**$ 883,779**	**$ 1,357,469**	**$ 473,690**	**54%**
Consulting Services				
Other Consulting Services	100,000	-	(100,000)	(100%)
Total Consulting Services	$ 100,000	$ -	$ (100,000)	(100%)
Contracted Services				
Legal Services - Non-Claims	50,000	50,000	-	0%
Mitigation Projects	850,000	1,076,000	226,000	27%
Staffing Services - Support and Admin	222,436		(222,436)	(100%)
Other Contracted Services	50,000	-	(50,000)	(100%)
Total Contracted Services	$ 1,172,436	$ 1,126,000	$ (46,436)	(4%)
CRMP Contribution	-	-	-	0%
Investment Expenses	16,800	28,400	-	0%
Total Expenditures	**$ 2,173,015**	**$ 2,511,869**	**$ 338,854**	**16%**

* In this view, 2015 budget numbers are categorized and shown using 2014-CEA-budget format.

Governing Board Memorandum

December 17, 2014

Agenda Item 22:	Development of organizational performance metrics
Recommended Action:	No action required – information only

Chief Executive Officer Glenn Pomeroy will update the Governing Board on the development of organizational performance metrics for the CEA.

Governing Board Memorandum

December 17, 2014

Agenda Item 23: (Proposed) 2015 Quarterly CEA Governing Board Meeting Schedule

Recommended Action: Approve (Proposed) 2015 Quarterly CEA Governing Board Meeting Schedule

---

Staff recommends approval of the following dates for the CEA Governing Board's 2015 regular business meetings:

(Potential) 2015 Quarterly Meeting Dates

All meetings are on a Thursday and begin at 1:00 p.m.

2015 MEETING DATES
February 19
May 21
August 27
December 17

2015

January

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	**19**	20	21
22	23	24	25	26	27	28

March

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May

					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	**21**	22	23
24	25	26	27	28	29	30
31						

June

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

August

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	**27**	28	29
30	31					

September

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

October

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

November

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

December

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	**17**	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

California Earthquake Authority

Losses & Loss Adjustment Expenses (LAE) Paid - Cumulative to October 31, 2014

Event Code	Event Name	Date of Event	Magnitude	Location	# of Paid Claims	Losses Paid	LAE Paid	Total Paid Losses & LAE
98010	Chino	1/5/1998	4.3	3 mi. W of Chino	1	$1,385.72	$124.71	$1,510.43
98050	San Juan Bautista	8/12/1998	5.3	7 mi. SSE of San Juan Bautista	1	161,204.93	13,643.13	$174,848.06
98070	Redding	11/26/1998	5.2	3 mi. NNW of Redding	1	4,029.72	362.67	$4,392.39
	1998 Minor Quakes				2	4,199.20	377.93	$4,577.13
99050	Hector Mine	11/16/1999	7.0	28 mi. N of Joshua Tree (near Palm Springs)	25	137,361.81	12,362.47	$149,724.28
	1999 Minor Quakes				1	4,037.26	363.35	$4,400.61
00030	Napa	9/3/2000	5.2	17 mi. ESE of Santa Rosa; 6 mi. NNE of Sonoma; 3 mi. WSW of Yountville	15	278,130.07	25,031.71	$303,161.78
01010	Ferndale	1/13/2001	5.4	53 mi. WNW of Ferndale	1	34,764.54	3,128.79	$37,893.33
	2001 Minor Quakes				1	52,896.82	4,760.70	$57,657.52
01040	West Hollywood	9/9/2001	4.2	West Hollywood	10	67,044.15	6,033.94	$73,078.09
	2002 Minor Quakes				1	8,361.24	752.51	$9,113.75
03090	San Simeon	12/22/2003	6.4	7 mi. NE of San Simeon	84	2,692,628.02	242,339.74	$2,934,967.76
04120	Parkfield	9/28/2004	6.0	7 mi SSE of Parkfield	1	7,032.59	632.93	$7,665.52
07240	Chatsworth	8/9/2007	4.5	4 mi NNW of Chatsworth	1	7,813.88	703.24	$8,517.12
07250	Alum Rock	10/30/2007	5.6	5 mi NNE of Alum Rock	1	6,149.20	553.42	$6,702.62
08280	Chino Hills	7/29/2008	5.4	5.5 mi SE of Diamond Bar	8	145,967.19	13,089.08	$159,056.27
09320	Calexico	12/30/2009	5.9	22.7 mi SE of Calexico	1	275.88	24.83	$300.71
	2009 Minor Quakes				2	8,627.67	776.49	$9,404.16

Continued

California Earthquake Authority

Losses & Loss Adjustment Expenses (LAE) Paid - Cumulative to October 31, 2014 (continued)

Event Code	Event Name	Date of Event	Magnitude	Location	# of Paid Claims	Losses Paid	LAE Paid	Total Paid Losses & LAE
10330	Ferndale	1/9/2010	6.5	27 mi W of Ferndale	3	23,901.50	2,151.13	$26,052.63
10360	Baja California Mexico	4/4/2010	7.2	16 mi SW from Guadalupe Victoria, Mexico	17	81,066.58	7,296.00	$88,362.58
	2010 Minor Quakes				1	225,000.00	0.00	$225,000.00
12410	Brawley	8/26/2012	5.3	4 mi North of Brawley, CA	2	23,833.24	2,145.00	$25,978.24
	2012 Minor Quakes				2	137,882.64	12,409.44	$150,292.08
13430	Greenville	5/23/2013	5.7	7 mi WNW of Greenville, CA	1	1,500.00	135.00	$1,635.00
14460	Westwood	3/17/2014	4.4	6mi NNW of Westwood, CA	5	42,989.89	3,869.09	$46,858.98
14470	La Habra	3/28/2014	5.1	1mi S of La Habra, CA	82	322,877.98	29,059.03	$351,937.01
14480	American Canyon	8/24/2014	6.0	4mi NW of American Canyon, CA	166	322,514.59	29,026.31	$351,540.90
	2014 Minor Quakes				0	0.00	0.00	$0.00
				Total	**436**	**$4,803,476.31**	**$411,152.64**	**$5,214,628.95**

Claims History Report Glossary

Event Code: A 5 digit code that the CEA assigns to all earthquakes expected to produce paid losses. This code is used to track statistics for a particular earthquake.

Event Name: This is generally the name given to the earthquake by the USGS (United States Geological Survey).

Date of Event: Date that the earthquake occurred.

Magnitude: Richter scale magnitude assigned by USGS.

Location: This is assigned by USGS and is usually a city close to the earthquake.

# of Paid Claims: A numeric count of the claims that received a payment for damage caused by a particular earthquake.

Losses Paid: Total dollar amount of all claims paid to the policyholders for a particular earthquake.

LAE Paid: "LAE" stands for Loss Adjustment Expense which is always 9% of paid losses. This is the amount paid to the Participating Insurers for handling the claim.

Total Paid Losses and ALE: The sum of Losses Paid and LAE Paid.

Minor Quakes: Losses paid for damage from minor earthquakes that were initially not expected to generate a claim and therefore were not issued a CEA event code.

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 11/23/2014 - Policies in Force on: 10/31/2014

TOTALS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Homeowners							
15% Total	578,195	66.8 %	268,977,833,627	79.8 %	459,553,779	77.0 %	795
10% Total	77,618	9.0 %	38,466,520,751	11.4 %	63,540,763	10.6 %	819
Homeowners Total	655,813	75.7 %	307,444,354,378	91.2 %	523,094,543	87.7 %	798
Homeowners Choice							
15% Total	14,318	1.7 %	8,455,390,654	2.5 %	14,745,560	2.5 %	1,030
10% Total	10,026	1.2 %	5,661,674,602	1.7 %	8,828,706	1.5 %	881
Homeowners Choice Total	24,344	2.8 %	14,117,065,256	4.2 %	23,574,266	4.0 %	968
Manufactured Homes (Mobilehomes)-Homeowners							
15% Total	22,162	2.6 %	2,444,684,462	0.7 %	2,555,383	0.4 %	115
10% Total	4,927	0.6 %	759,512,910	0.2 %	679,809	0.1 %	138
Manufactured Homes (Mobilehomes)-Homeowners Total	27,089	3.1 %	3,204,197,372	1.0 %	3,235,192	0.5 %	119
Manufactured Homes (Mobilehomes)-Homeowners Choice							
15% Total	259	0.0 %	39,985,237	0.0 %	43,714	0.0 %	169
10% Total	336	0.0 %	56,677,713	0.0 %	47,361	0.0 %	141
Manufactured Homes (Mobilehomes)-Homeowners Choice Total	595	0.1 %	96,662,950	0.0 %	91,075	0.0 %	153
Condo Total	105,476	12.2 %	10,311,728,000	3.1 %	40,410,680	6.8 %	383
Renters Total	52,594	6.1 %	2,048,005,000	0.6 %	6,359,996	1.1 %	121
Grand Total	865,911	100.0 %	337,222,012,956	100.0 %	596,765,753	100.0 %	689

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 11/23/2014 - Policies in Force on: 10/31/2014

HOMEOWNERS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Deductible - 15%							
CovA/C5k/D1.5k/BCU10k	578,195	88.2 %	260,696,142,627	84.8 %	429,056,976	82.0 %	742
BCU 20k	76,282	11.6 %	762,820,000	0.2 %	1,264,329	0.2 %	17
Coverage C 25k	34,184	5.2 %	683,680,000	0.2 %	4,789,333	0.9 %	140
Coverage C 50k	21,339	3.3 %	960,255,000	0.3 %	4,889,751	0.9 %	229
Coverage C 75k	9,146	1.4 %	640,220,000	0.2 %	2,654,224	0.5 %	290
Coverage C 100k	34,782	5.3 %	3,304,290,000	1.1 %	12,177,299	2.3 %	350
Coverage D 10k	38,603	5.9 %	328,125,500	0.1 %	964,061	0.2 %	25
Coverage D 15k	64,484	9.8 %	870,534,000	0.3 %	2,385,280	0.5 %	37
Coverage D 25k	31,139	4.7 %	731,766,500	0.2 %	1,372,527	0.3 %	44
15% Total	**578,195**	**88.2 %**	**268,977,833,627**	**87.5 %**	**459,553,779**	**87.9 %**	**795**
Deductible - 10%							
CovA/C5k/D1.5k/BCU10k	77,618	11.8 %	34,550,098,251	11.2 %	51,415,472	9.8 %	662
BCU 20k	23,872	3.6 %	238,720,000	0.1 %	321,512	0.1 %	13
Coverage C 25k	12,226	1.9 %	244,520,000	0.1 %	1,753,426	0.3 %	143
Coverage C 50k	8,668	1.3 %	390,060,000	0.1 %	1,697,449	0.3 %	196
Coverage C 75k	4,034	0.6 %	282,380,000	0.1 %	992,401	0.2 %	246
Coverage C 100k	20,548	3.1 %	1,952,060,000	0.6 %	6,054,388	1.2 %	295
Coverage D 10k	13,844	2.1 %	117,674,000	0.0 %	248,382	0.0 %	18
Coverage D 15k	22,951	3.5 %	309,838,500	0.1 %	599,729	0.1 %	26
Coverage D 25k	16,220	2.5 %	381,170,000	0.1 %	458,005	0.1 %	28
10% Total	**77,618**	**11.8 %**	**38,466,520,751**	**12.5 %**	**63,540,763**	**12.1 %**	**819**
Homeowners Total	**655,813**	**100.0 %**	**307,444,354,378**	**100.0 %**	**523,094,543**	**100.0 %**	**798**

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 11/23/2014 - Policies in Force on: 10/31/2014

HOMEOWNERS CHOICE	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Deductible - 15%							
CovA/C5k/D1.5k/BCU10k[1]	14,318	58.8 %	7,928,841,154	56.2 %	12,485,396	53.0 %	872
BCU 20k	5,192	21.3 %	51,920,000	0.4 %	93,933	0.4 %	18
Coverage C 25k	1,907	7.8 %	38,140,000	0.3 %	405,118	1.7 %	212
Coverage C 50k	1,430	5.9 %	64,350,000	0.5 %	386,255	1.6 %	270
Coverage C 75k	491	2.0 %	34,370,000	0.2 %	146,554	0.6 %	298
Coverage C 100k	1,982	8.1 %	188,290,000	1.3 %	759,501	3.2 %	383
Coverage D 10k	1,659	6.8 %	14,101,500	0.1 %	68,337	0.3 %	41
Coverage D 15k	1,004	4.1 %	13,554,000	0.1 %	52,912	0.2 %	53
Coverage D 25k	5,184	21.3 %	121,824,000	0.9 %	347,553	1.5 %	67
15% Total	**14,318**	**58.8 %**	**8,455,390,654**	**59.9 %**	**14,745,560**	**62.5 %**	**1,030**
Deductible - 10%							
CovA/C5k/D1.5k/BCU10k[1]	10,026	41.2 %	5,100,537,602	36.1 %	6,920,834	29.4 %	690
BCU 20k	4,374	18.0 %	43,740,000	0.3 %	63,437	0.3 %	15
Coverage C 25k	1,906	7.8 %	38,120,000	0.3 %	332,034	1.4 %	174
Coverage C 50k	1,599	6.6 %	71,955,000	0.5 %	338,250	1.4 %	212
Coverage C 75k	542	2.2 %	37,940,000	0.3 %	128,155	0.5 %	236
Coverage C 100k	2,477	10.2 %	235,315,000	1.7 %	763,975	3.2 %	308
Coverage D 10k	1,676	6.9 %	14,246,000	0.1 %	45,525	0.2 %	27
Coverage D 15k	863	3.5 %	11,650,500	0.1 %	30,861	0.1 %	36
Coverage D 25k	4,603	18.9 %	108,170,500	0.8 %	205,634	0.9 %	45
10% Total	**10,026**	**41.2 %**	**5,661,674,602**	**40.1 %**	**8,828,706**	**37.5 %**	**881**
Homeowners Choice Total	**24,344**	**100.0 %**	**14,117,065,256**	**100.0 %**	**23,574,266**	**100.0 %**	**968**

[1]Includes policies with Coverage A, C and D, Coverage A and C, Coverage A and D, and Coverage A only

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 11/23/2014 - Policies in Force on: 10/31/2014

MANUFACTURED HOMES (MOBILEHOMES)-HOMEOWNERS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Deductible - 15%							
CovA/C5k/D1.5k/BCU10k	22,162	81.8 %	2,240,171,462	69.9 %	2,430,254	75.1 %	110
Coverage C 25k	1,681	6.2 %	33,620,000	1.0 %	37,878	1.2 %	23
Coverage C 50k	1,107	4.1 %	49,815,000	1.6 %	36,385	1.1 %	33
Coverage C 75k	366	1.4 %	25,620,000	0.8 %	13,894	0.4 %	38
Coverage C 100k	500	1.8 %	47,500,000	1.5 %	21,203	0.7 %	42
Coverage D 10k	1,558	5.8 %	13,243,000	0.4 %	5,748	0.2 %	4
Coverage D 15k	1,299	4.8 %	17,536,500	0.5 %	5,968	0.2 %	5
Coverage D 25k	731	2.7 %	17,178,500	0.5 %	4,052	0.1 %	6
15% Total	**22,162**	**81.8 %**	**2,444,684,462**	**76.3 %**	**2,555,383**	**79.0 %**	**115**
Deductible - 10%							
CovA/C5k/D1.5k/BCU10k	4,927	18.2 %	540,421,910	16.9 %	585,075	18.1 %	119
Coverage C 25k	1,596	5.9 %	31,920,000	1.0 %	26,735	0.8 %	17
Coverage C 50k	1,158	4.3 %	52,110,000	1.6 %	25,249	0.8 %	22
Coverage C 75k	376	1.4 %	26,320,000	0.8 %	11,450	0.4 %	30
Coverage C 100k	574	2.1 %	54,530,000	1.7 %	19,188	0.6 %	33
Coverage D 10k	1,382	5.1 %	11,747,000	0.4 %	3,466	0.1 %	3
Coverage D 15k	1,262	4.7 %	17,037,000	0.5 %	4,228	0.1 %	3
Coverage D 25k	1,082	4.0 %	25,427,000	0.8 %	4,418	0.1 %	4
10% Total	**4,927**	**18.2 %**	**759,512,910**	**23.7 %**	**679,809**	**21.0 %**	**138**
Manufactured Homes (Mobilehomes)-Homeowners Total	**27,089**	**100.0 %**	**3,204,197,372**	**100.0 %**	**3,235,192**	**100.0 %**	**119**

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 11/23/2014 - Policies in Force on: 10/31/2014

MANUFACTURED HOMES (MOBILEHOMES)-HOMEOWNERS CHOICE	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Deductible - 15%							
CovA/C5k/D1.5k/BCU10k[1]	259	43.5 %	30,587,237	31.6 %	35,911	39.4 %	139
Coverage C 25k	63	10.6 %	1,260,000	1.3 %	2,078	2.3 %	33
Coverage C 50k	48	8.1 %	2,160,000	2.2 %	2,428	2.7 %	51
Coverage C 75k	19	3.2 %	1,330,000	1.4 %	966	1.1 %	51
Coverage C 100k	17	2.9 %	1,615,000	1.7 %	637	0.7 %	37
Coverage D 10k	34	5.7 %	289,000	0.3 %	300	0.3 %	9
Coverage D 15k	17	2.9 %	229,500	0.2 %	160	0.2 %	9
Coverage D 25k	107	18.0 %	2,514,500	2.6 %	1,235	1.4 %	12
15% Total	**259**	**43.5 %**	**39,985,237**	**41.4 %**	**43,714**	**48.0 %**	**169**
Deductible - 10%							
CovA/C5k/D1.5k/BCU10k[1]	336	56.5 %	40,223,713	41.6 %	38,362	42.1 %	114
Coverage C 25k	124	20.8 %	2,480,000	2.6 %	3,054	3.4 %	25
Coverage C 50k	84	14.1 %	3,780,000	3.9 %	2,186	2.4 %	26
Coverage C 75k	23	3.9 %	1,610,000	1.7 %	635	0.7 %	28
Coverage C 100k	37	6.2 %	3,515,000	3.6 %	1,191	1.3 %	32
Coverage D 10k	68	11.4 %	578,000	0.6 %	482	0.5 %	7
Coverage D 15k	35	5.9 %	472,500	0.5 %	225	0.2 %	6
Coverage D 25k	171	28.7 %	4,018,500	4.2 %	1,227	1.3 %	7
10% Total	**336**	**56.5 %**	**56,677,713**	**58.6 %**	**47,361**	**52.0 %**	**141**
Manufactured Homes (Mobilehomes)-Homeowners Choice Total	**595**	**100.0 %**	**96,662,950**	**100.0 %**	**91,075**	**100.0 %**	**153**

[1]Includes policies with Coverage A, C and D, Coverage A and C, Coverage A and D, and Coverage A only

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 11/23/2014 - Policies in Force on: 10/31/2014

CONDO	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Coverage A/BCU 10k	79,183	75.1 %	2,770,915,000	26.9 %	8,328,848	20.6 %	105
Coverage C 5k/D 1.5k	33,070	31.4 %	214,955,000	2.1 %	2,352,534	5.8 %	71
Coverage C 5k[1]	11,276	10.7 %	56,270,000	0.5 %	694,362	1.7 %	62
Coverage C 25k	16,055	15.2 %	401,375,000	3.9 %	1,814,290	4.5 %	113
Coverage C 50k	12,859	12.2 %	642,950,000	6.2 %	1,594,787	3.9 %	124
Coverage C 75k	5,622	5.3 %	421,650,000	4.1 %	749,807	1.9 %	133
Coverage C 100k	12,432	11.8 %	1,243,200,000	12.1 %	1,711,514	4.2 %	138
Coverage D 1.5k[2]	7,284	6.9 %	10,893,000	0.1 %	94,246	0.2 %	13
Coverage D 10k	14,199	13.5 %	141,990,000	1.4 %	362,016	0.9 %	25
Coverage D 15k	22,277	21.1 %	334,155,000	3.2 %	607,092	1.5 %	27
Coverage D 25k	14,484	13.7 %	362,100,000	3.5 %	398,818	1.0 %	28
Coverage E 25k	3,382	3.2 %	83,875,000	0.8 %	742,828	1.8 %	220
Coverage E 50k	59,039	56.0 %	2,951,950,000	28.6 %	17,516,873	43.3 %	297
Coverage E 75k	9,006	8.5 %	675,450,000	6.6 %	3,442,665	8.5 %	382
Condo Total	**105,476**	**100.0 %**	**10,311,728,000**	**100.0 %**	**40,410,680**	**100.0 %**	**383**

[1]Policies that have a Coverage C limit of 5k and a Coverage D limit >1.5k

[2]Policies that have a Coverage D limit of 1.5k and a Coverage C limit >5k

California Earthquake Authority

Operations - Governing Board Report

All Companies - As Of 11/23/2014 - Policies in Force on: 10/31/2014

RENTERS	Policies In Force	% Total	Exposure	% Total	Written Premium	% Total	Avg Written Premium
Coverage C 5k/D 1.5k	19,816	37.7 %	128,804,000	6.3 %	1,442,644	22.7 %	73
Coverage C 5k[1]	3,997	7.6 %	19,985,000	1.0 %	276,348	4.3 %	69
Coverage C 25k	13,503	25.7 %	337,575,000	16.5 %	1,660,749	26.1 %	123
Coverage C 50k	7,837	14.9 %	391,850,000	19.1 %	1,056,199	16.6 %	135
Coverage C 75k	2,347	4.5 %	176,025,000	8.6 %	338,322	5.3 %	144
Coverage C 100k	5,094	9.7 %	509,400,000	24.9 %	717,350	11.3 %	141
Coverage D 1.5k[2]	5,314	10.1 %	7,971,000	0.4 %	72,239	1.1 %	14
Coverage D 10k	8,569	16.3 %	85,690,000	4.2 %	239,589	3.8 %	28
Coverage D 15k	8,167	15.5 %	122,505,000	6.0 %	239,746	3.8 %	29
Coverage D 25k	10,728	20.4 %	268,200,000	13.1 %	316,809	5.0 %	30
Renters Total	**52,594**	**100.0 %**	**2,048,005,000**	**100.0 %**	**6,359,996**	**100.0 %**	**121**

[1]Policies that have a Coverage C limit of 5k and a Coverage D limit >1.5k

[2]Policies that have a Coverage D limit of 1.5k and a Coverage C limit >5k