



CALIFORNIA EARTHQUAKE AUTHORITY (CEA)

ANNUAL REPORT TO THE LEGISLATURE AND THE CALIFORNIA INSURANCE COMMISSIONER ON CEA PROGRAM OPERATIONS

Report for Calendar Year 2017

(Pursuant to California Insurance Code section 10089.13, subdivision (a))

Date of Report: August 1, 2018

Brief Background: California Earthquake Authority

The California Earthquake Authority (CEA) was formed through legislation in 1995 and 1996 to address primarily a homeowners-insurance-availability crisis that followed the 1994 Northridge earthquake. After that earthquake, many homeowners found it difficult, and in some cases impossible, to find basic homeowners insurance. Many others were faced with the prospect of having their homeowners insurance non-renewed as insurance companies tried to shed their exposure to earthquake risk.

Because state law required (and still requires) insurers to offer earthquake insurance to their applicants for and holders of residential policies, the insurers' retreat from the California market resulted in an availability crisis for both homeowners and residential earthquake insurance. The California Department of Insurance ("CDI") reported in summer 1996, at the height of the crisis, that 95 percent of the homeowners-insurance market had either stopped, or had severely restricted, sales of new homeowners policies.

After the CEA began operations on December 2, 1996, the recovery of the California homeowners-insurance market was dramatic and swift. A Department of Insurance report noted that at the peak of the availability crisis, 82 insurers had restricted the sale of new homeowners policies—by contrast, by October 1997 and with CEA operations in full swing, only three insurers were restricting the sale of new homeowners policies.

The CEA is the largest earthquake insurer in California, with over 75% of the residential-earthquake-insurance market. CEA participating insurers are responsible for almost 80% of California's residential property insurance.

Current Market Conditions

California's Residential Property Insurance Market

The CDI year-end-2017 data once again indicate an increase in policy numbers in the statewide residential property insurance market: In 2016, insurers sold 11.59 million homeowners policies compared to the previous year's 11.26 million. (See Attachment A: *California Department of Insurance, Summary of 2017 Residential Market Totals.*)

Statewide totals, for all insurers that wrote residential property insurance in California in 2017:

- Residential Single-Family Dwelling Policies totaled 6,152,372
- Residential Condominium Policies totaled 902,812
- Mobilehome Policies totaled 264,892
- Residential Rental Policies totaled 2,226,125
- Dwelling Fire Policies totaled 2,041,623

California's Residential Earthquake Insurance Market – 2017

Based on the total number of residential earthquake insurance policies written in 2017, CEA and non-CEA companies together accounted for 1.32 million earthquake insurance policies statewide—a nine percent increase from 2016's 1.21 million.

CEA Earthquake Response in 2017

2017 was a relatively quiet year with respect to damaging earthquakes in California. In 2017 the CEA received 227 claims of earthquake damage; for that claim load, remaining loss reserves (as of June 2018) total less than \$100.

The CEA scheduled its annual meeting and seminar for CEA-participating-insurer ("PI") claim and product managers for October 2017. The meeting was rescheduled to May 2018 because of the many catastrophic events then ongoing in the United States, including Northern California wildfires and the unavailability of PI claim staff. In the meeting, over a full day, CEA executives, managers, and staff explained CEA's claim-handling expectations, as well as product and coverage information for PI claim and operations personnel in attendance.

CEA Operational Developments in 2017

CEA Policy Growth and Development

CEA ended 2017 with 1,021,707 policies in force, a 9.7% increase over year-end 2016—CEA's largest year-over-year policy-count increase.

This historic growth in the number of California renters and property owners who buy (or maintain) residential earthquake insurance may be attributable to CEA's introducing new optional coverage limits and deductibles, and to related marketing and outreach initiatives.

- At year-end 2017, the CEA had 93,076 “Homeowners Choice” policyholders, up from approximately 64,126 at year-end 2016. By accessing the new product, Homeowners Choice policyholders are customizing their policies by purchasing only the coverages they need.
- It is interesting to note that more policyholders continue to select lower deductibles on their personal-property coverage and higher limits of protection for additional living expenses.
- Ten percent of CEA policyholders have selected the low 5% deductible option.
- New optional endorsements introduced in 2016 have had similar positive results: In 2017, 54,186 policyholders purchased (optional) coverage for breakables, while 21,033 policyholders purchased masonry-veneer coverage—in both cases, purchase levels doubled from 2016.

Background: Starting January 1, 2016—New Coverages, Limits, Deductibles

Beginning in 2016 with new and renewed policies, coverage limits and deductible options included:

- **Deductibles:** Expanding the existing 10% and 15% homeowners-policy deductible options, all policies offered newly available, wider deductible options: 5%, 10%, 15%, 20%, or 25% of the structure-coverage limit.
- **Personal Property coverage limit:** In addition to existing limit options of \$5,000, \$25,000, \$50,000, \$75,000, and \$100,000, new \$150,000 and \$200,000 limit options became available.
- **Loss of Use coverage limit:** In addition to existing limit options of \$1,500, \$10,000, \$15,000, and \$25,000, new \$50,000, \$75,000, and \$100,000 limit options became available.
- **“Breakables” coverage:** A new option to purchase coverage for breakage of personal property (e.g., dishes, artwork, and collectibles) became available across all CEA policies.
- **Masonry Veneer coverage:** A new option to purchase coverage for damage to exterior masonry veneer of a CEA-insured house became available.

With more choice in coverages and deductibles, consumers are empowered to better manage their residential-earthquake-insurance premium, meaning the new policy features can enhance affordability.

Future CEA Rate and Coverage Changes

In March 2017, CEA staff informed the CEA Governing Board, the CDI, and CEA participating insurers that CEA intends to file with CDI a rate and coverage application, tentatively to become

effective on January 1, 2019. The filing was submitted to the CDI in February 2018.

Centralized Policy Processing (CPP)

CEA typically makes and implements a rate-and-form filing (“RFF”) about every three years. New CEA rates and forms can represent challenges for CEA participating insurers, requiring updates to internal systems and procedures to accommodate changes. As well, resource demands within PIs for IT and related services can make PI implementation costs substantial.

The CEA has developed and is now offering a solution: Centralized Policy Processing (“CPP”). CPP is a long-term, technical initiative intended to provide PIs with a CEA-hosted policy-administration and claim-processing software system for CEA policies, at no charge for basic services in the CPP “standard offering.”

CPP means that for adopters of the system (it is optional for PIs to use CPP), RFF-induced changes to the CEA policy are implemented in CPP at modest cost to PIs.

Several PIs have already implemented CPP, and more are in line to do the same.

Communications

CEA marketing and advertising in 2017 again responded through many outlets, reaching out to California consumers, a majority of whom who say they want more information about earthquake risk and earthquake insurance:

- CEA delivered over 1 billion English, Spanish, and Chinese advertising impressions through 22 TV stations, 102 radio stations, an email/direct-mail program to highly targeted prospects, and online platforms.
- CEA was the sole sponsor of disaster-preparedness guides distributed by the *San Diego Union Tribune* and *San Francisco Chronicle* and also sponsored a KCBS-TV Earthquake Scenario news segment in Los Angeles, as well as the San Diego Successful Aging Expo.

Annual Direct Mail

- 60,000 pieces of direct mail delivered to CEA policyholders
- 479,000 pieces of direct mail through agents to earthquake-insurance prospects
- 4.8 million emails and 482,000 pieces of direct mail through an email trigger campaign
- 568,000 Mandatory Marketing Documents
- 119,000 Hazard Reduction Discount letters

Earthquake Risk Is Real

In 2017, CEA continued its advertising/creative approach of “Earthquake Risk Is Real,” responding to consumer research conducted by CEA and a desire to shift the marketing/advertising focus from preparedness to recovery.

The “Earthquake Risk Is Real” campaign has three key goals: to drive home the message that the risk of damaging earthquakes is real; to educate Californians about new, more flexible and

affordable, policy offerings; and to encourage Californians to buy earthquake insurance to protect their family finances and aid their family's recovery.

Marketing Value Program

CEA's Marketing Value Program (MVP), which delivered about 1.8 million pieces of direct mail through agents trained to sell CEA policies, completed its seventh year of operation in 2017.

Custom-fulfilled direct mail in the name of CEA participating-insurance-company agents focused on generating new CEA-policy sales and renewal of existing CEA policies. CEA offered agent training in-person, online, and through webinars, and held a successful agent forum in San Francisco, training a total of 1,064 agents and qualifying 421 licensed agents for the MVP.

Supporting the *Great California ShakeOut*TM

CEA continued its significant role in promoting participation in the *Great California ShakeOut*TM statewide earthquake drill, which saw 10.5 million Californians participate in 2017.

Get Prepared, California!

CEA joined forces with the American Red Cross again in 2017 to promote its sixth annual statewide auction at GetPreparedCalifornia.org, which delivered more than 150 million media impressions promoting earthquake preparedness and generated \$171,000 to benefit Red Cross and earthquake-preparedness in California. Total money raised by the *Get Prepared, California!* Auction over the six years now exceeds \$1,060,000.

Stakeholder Outreach

Results from CEA's 2017 stakeholder outreach include:

- Seventy-seven presentations, in 53 cities, to Chambers of Commerce, Rotary Clubs, real estate agents, homeowner associations, neighborhood councils, rental-housing associations, and insurance-agent forums.
- Distributing news releases, media advisories, and public-service announcements.
- Coordinating statewide media spokespersons and a media database.
- Hosting press availabilities for preparedness stakeholders.
- Distributing direct mail in English, Spanish, and Chinese.
- Hosting information booths at ethnic-community festivals.
- Sponsoring a "preparedness team" at community events.

Mitigation Program Development

The CEA law directs the CEA Governing Board to set aside annually five percent of the CEA's investment income (as long as the set-aside is actuarially sound) up to five million dollars, to be used for activities that mitigate seismic risks of vulnerable residential structures in California.

This includes programs to provide financial assistance to those who mitigate their homes against seismic risk.

In 2017, the CEA mitigation program coordinated projects in four focused areas:

1. Guidelines Development

Current guidelines—adopted into California’s existing-building code through CEA efforts in 2010—address one basic type of prescriptive seismic retrofit to single-family dwellings (other retrofits may come under that code provision, but only with guidance from a design professional (architect or engineer)).

More guidelines are needed for additional seismic-retrofit types, to benefit other types of houses equally (or more) vulnerable to earthquake damage.

- The CEA and the Applied Technology Council (<https://www.atcouncil.org/>) contracted in November 2013 to collaborate on “ATC-110,” to develop a pre-standard for the evaluation and retrofit of one- and two-family light-frame residential buildings.
- The work is co-funded by the CEA and the Federal Emergency Management Agency (“FEMA”).
- In 2015, the project team delivered a detailed outline for research and content-development for the next three years of the project.
- In 2016, the project team conducted simulation models to determine efficacy of standardized prescriptive-seismic-retrofit components, In 2017, the project team developed draft pre-standards based on prior-year simulations, scheduled for completion in 2018.

2. Verification Program

In 2011–2012, CEA supported developing FEMA P-50 (*Simplified Seismic Assessment of Detached, Single-Family, Wood-Frame Dwellings*) and FEMA P-50-1 (*Seismic Retrofit Guidelines for Detached, Single-Family, Wood-Frame Dwellings*).

FEMA P-50 provides an evaluation system and tool for use by home inspectors in evaluating seismic and structural vulnerabilities of a house. The evaluation incorporates geological risks determined through Cal OES’s *My Plan* and the USGS-assigned *Regional Hazard Score*. It then evaluates the structural components of the house to determine a “Structural Score.” Both are then used to determine the “Seismic Performance Grade.”

P-50-1 also provides guidelines for loss-mitigation steps that would improve the Seismic Performance Grade for houses with elements that could be retrofitted.

In August 2016, the California Real Estate Inspection Association (CREIA) approved the creation of the Simplified Seismic Assessment (SSA) certification, which would be based in FEMA P-50 training. FEMA P-50 training was offered at CREIA’s annual conference in

May 2017, with training for CREIA trainers the following day. Throughout 2017, CEA assisted CREIA and ATC with the training curriculum and participant requirements for applying for and maintaining the certification. The certification requires completion of the FEMA P-50 training, practical use in three ride-alongs with CREIA trainers, a refresher webinar, and a test. Those who pass will earn the certification. The certification program is scheduled to kick-off at the 2018 CREIA conference.

In an effort to automate the evaluation process, CEA developed a Web-based application based on the FEMA P-50 and P-50-1 assessment and recommendation guidelines. The CEA's *QuakeGrade*® can operate on multiple operating systems and browsers and is accessible on mobile devices, laptops, and desktop computers. While the software is free, registration is required and limited to licensed civil, structural, and geotechnical engineers, general contractors, and CREIA members who are MCI or CCI certified. CEA's application to register *QuakeGrade*® was approved in December 2017.

3. Earthquake Brace + Bolt Program

Through a joint powers authority established by the CEA (a public instrumentality of the state) and the California Governor's Office of Emergency Services (a state agency)—the JPA is called the California Residential Mitigation Program—a mitigation-incentive program called Earthquake Brace + Bolt (EBB) operates, offering eligible Californians a grant of up to \$3,000 to make their houses more resistant to earthquake damage.

In 2013, the EBB pilot program randomly selected houses in two ZIP Codes in Los Angeles and two ZIP Codes in Oakland. Between the two areas, eight houses completed seismic retrofits by April 2014, in whole or in part using EBB grants.

In 2015, EBB was available in 28 ZIP Codes in Oakland, San Francisco, San Leandro, Los Angeles, Pasadena, Santa Monica, and Napa. The 2015 goal was to complete 600 retrofits, and 528 were completed.

In 2016, plans to expand the program were developed and implemented, expanding the program to 105 ZIP Codes in 18 California cities. The CRMP governing board approved 600 EBB retrofits for the 2016 program.

In addition, 1,000 additional retrofits were funded by \$3 million provided through an appropriation from the State of California to the California Department of Insurance, which granted those funds to CEA expressly for EBB-mitigation-grant purposes. The 2016 goal was to complete 1,600 retrofits, and 1,555 were completed.

In 2016, CEA received a \$300,000 grant through FEMA's Hazard Mitigation Grant Program, to be directed to 100 "Napa EBB" retrofits: code-based mitigation measures for houses located within the City of Napa, administered under a separate CRMP EBB program. The program closed in June 2018 with an estimated 84 completed retrofits.

In October 2016, CEA piloted the CEA Brace + Bolt (CEA BB) program, which unlike CRMP programs (which are aimed at all house-owning members of the public, without regard to whether they are CEA policyholders), is available solely to CEA policyholders. While operating similarly to the CRMP EBB programs, CEA BB is funded directly from CEA capital. By the end of 2017, 79 CEA policyholders had elected to participate in the CEA BB pilot program.

4. Research Program Development

Based on available data and actuarial computations and authorization—supported by regulatory approval—certain single-family dwellings in the CEA’s insured portfolio presently warrant earthquake-insurance premium discounts of up to 20 percent. These discounts were implemented in 2017.

Increasing the discount beyond what is presently provided, however, would depend on authoritative research that links specified seismic-retrofit techniques to specified structural elements, to achieve greater reduction of earthquake damage. Current research is limited to the effectiveness of basic seismic retrofits on raised foundation, cripple-walled, single-family dwellings of a certain configuration and located on no (or minimal) slope.

To address these information needs, the CEA is funding research on the effects of specified retrofit techniques, using numerical modeling, component testing, and possibly shake-table testing of seismically strengthened and un-strengthened single-family dwellings.

CEA contracted with Pacific Earthquake Engineering Research Center (PEER), based at the University of California, Berkeley, in September 2016. Research activities began in early 2017 with a literature review and concluded the year with preparations for component testing in early 2018.

Financial Report

Revenue Bonds

In 2014 the CEA issued \$350,000,000 in investment-grade (non-full-faith-and-credit of the State of California) revenue bonds, with varying maturities.

- On July 1, 2016, the two-year bond (in the amount of \$40,000,000) matured, leaving an outstanding balance of \$310,000,000.
- On July 1, 2017, the three-year bond (in the amount of \$60,000,000) matured, and the CEA reduced the principle balance on the five-year bond by \$40,000,000.

At year-end 2017, the total outstanding principal balance of this issuance was \$210,000,000.

Financial-Stability Ratings

During 2017, CEA continued to be rated by the A. M. Best Co. as “A-Minus (Excellent), with a stable outlook.”

Best’s rating framework continues to recognize the CEA’s “excellent risk-adjusted capitalization, financial flexibility, extensive risk modeling capabilities, sophisticated management practices, and conservative investment policy.”

Attachment A: California Department of Insurance Summary: 2017 Residential Market Totals

EARTHQUAKE PREMIUM AND POLICY COUNT DATA CALL

SUMMARY OF 2017 RESIDENTIAL MARKET TOTALS

| 2017 Experience Year | Written Prem Excluding EQ | No. of Policies Excluding EQ | Exposure (\$) Excluding EQ | Avg Prem Per Policy | Avg Rate Per \$1,000 Insurance | Market Share * | EQ Premiums | No. of EQ Policies | Exposure (\$) Including CEA | Avg Prem Per Policy | Avg Rate Per \$1,000 Insurance | Market Share * | % with EQ ** |
|---|------------------------------|---------------------------------|-------------------------------|------------------------|-----------------------------------|-------------------|----------------|-----------------------|--------------------------------|------------------------|-----------------------------------|-------------------|-----------------|
| Total CEA Companies | 6,360,328,619 | 9,420,929 | 2,588,361,126,828 | \$ 675.13 | \$ 2.46 | 81.30% | 688,378,185 | 1,021,707 | 436,335,717,652 | \$ 673.75 | \$ 1.58 | 77.53% | 10.85% |
| Total Residential Mkt (Excluding CEA) | 2,016,373,512 | 2,166,895 | 931,328,969,011 | \$ 930.54 | \$ 2.17 | 18.70% | 408,110,741 | 296,150 | 201,306,257,678 | \$ 1,378.05 | \$ 2.03 | 22.47% | 13.67% |
| Total Residential Mkt (Including CEA) | 8,376,702,131 | 11,587,824 | 3,519,690,095,839 | \$ 722.89 | \$ 2.38 | 100.00% | 1,096,488,926 | 1,317,857 | 637,641,975,330 | \$ 832.02 | \$ 1.72 | 100.00% | 11.37% |
| Total Homeowners Market | 6,427,718,904 | 6,152,372 | 2,782,817,080,355 | \$ 1,044.75 | \$ 2.31 | 53.09% | 960,826,238 | 929,764 | 587,533,777,070 | \$ 1,033.41 | \$ 1.64 | 70.55% | 15.11% |
| Total Rental Market | 391,500,241 | 2,226,125 | 65,253,061,173 | \$ 175.87 | \$ 6.00 | 19.21% | 13,447,211 | 129,747 | 4,383,497,269 | \$ 103.64 | \$ 3.07 | 9.85% | 5.83% |
| Total Condominium Market | 468,318,503 | 902,812 | 52,534,965,463 | \$ 518.73 | \$ 8.91 | 7.79% | 69,826,833 | 141,417 | 16,127,162,997 | \$ 493.77 | \$ 4.33 | 10.73% | 15.66% |
| Total Dwelling Fire Market | 918,074,030 | 2,041,623 | 594,321,065,402 | \$ 449.68 | \$ 1.54 | 17.62% | 37,881,199 | 60,161 | 22,903,250,507 | \$ 629.66 | \$ 1.65 | 4.57% | 2.95% |
| Total Mobilehome Market | 171,090,453 | 264,892 | 24,763,923,446 | \$ 645.89 | \$ 6.91 | 2.29% | 14,507,445 | 56,768 | 6,694,287,487 | \$ 255.56 | \$ 2.17 | 4.31% | 21.43% |
| Total Residential Mkt (Including CEA) | 8,376,702,131 | 11,587,824 | 3,519,690,095,839 | \$ 722.89 | \$ 2.38 | 100.00% | 1,096,488,926 | 1,317,857 | 637,641,975,330 | \$ 832.02 | \$ 1.72 | 100.00% | 11.37% |
| California FAIR Plan | 78,450,231 | 123,169 | 46,848,082,926 | \$ 636.93 | \$ 1.67 | 6.03% | 4,211,549 | 4,444 | 2,267,987,776 | \$ 947.69 | \$ 1.86 | 7.39% | 3.61% |
| Total Dwelling Fire (Excluding CA FAIR Plan) | 839,623,799 | 1,918,454 | 547,472,982,476 | \$ 437.66 | \$ 1.53 | 93.97% | 33,669,650 | 55,717 | 20,635,262,731 | \$ 604.30 | \$ 1.63 | 92.61% | 2.90% |
| Total Dwelling Fire Market | 918,074,030 | 2,041,623 | 594,321,065,402 | \$ 449.68 | \$ 1.54 | 100.00% | 37,881,199 | 60,161 | 22,903,250,507 | \$ 629.66 | \$ 1.65 | 100.00% | 2.95% |

* Market share represents the percentage of policies to total residential market.
 ** Percent with EQ represents the percentage of policies that also have EQ coverage.

Attachment B: Financial Statement
California Earthquake Authority: Annual Financial Report

In accordance with California Insurance Code sec. 10089.13, subdivision (b), the California Earthquake Authority reports its finances as of December 31, 2017:

| | | |
|-------------|--|---------------|
| Assets | | |
| | Cash on hand | \$389,813,36 |
| | Stocks or bonds | 5,927,549,455 |
| | Premiums receivable | 64,475,336 |
| | Assessments receivable | - |
| | Interest receivable | 21,920,430 |
| | Securities receivable | 98,223,089 |
| | Unearned ceded premium | - |
| | Prepaid reinsurance premiums | 17,291,299 |
| | Prepaid reinsurance maintenance premium | 5,639,851 |
| | Equipment, net of depreciation | 269,494 |
| | Deferred participating-insurer commissions and operating costs | - |
| | Reinsurance premium receivable | - |
| | Other assets | 365,090 |
| Liabilities | | |
| | Losses due and unpaid | - |
| | Claims for losses resisted by the CEA | - |
| | Losses in the process of adjustment or suspense | - |
| | Reported losses | 94,974 |
| | Supposed losses | - |
| | Revenue bonds Payable | 210,000,000 |
| | Revenue bonds Interest Payable | 2,945,250 |
| | Other debt financing | - |
| | Unearned premium | 373,456,016 |
| | Unearned commissions | - |
| | Accounts payable | 12,344,963 |
| | Payable to CRMP | - |
| | Securities payable | 32,727,818 |
| | Accrued reinsurance premium expense | - |
| Income | | |
| | Premiums received | 706,550,318 |
| | Interest money received | 79,721,653 |
| | Installment fees | 472,970 |
| | Supplemental commissions | - |
| Expenses | | |
| | Loss adjustment expenses paid | 672 |
| | Losses paid | 7,469 |
| | Participating insurer commissions | 70,657,732 |
| | Participating insurer operating costs | 22,945,402 |
| | Reinsurance broker commissions | 2,800,000 |
| | Financing expenses | 7,285,296 |
| | Reinsurance premium | 315,744,745 |
| | Other underwriting expenses | 39,772,822 |

Attachment C: Summary of CEA Claim-Paying Capacity

In accordance with California Insurance Code sec. 10089.13, subdivision (c), the California Earthquake Authority reports this separate financial summary of its claim-paying capacity as of December 31, 2017.

| | | |
|---------------|--|----------------------|
| Assets | | |
| | Cash & Investments | \$6,317,362,817 |
| | Earthquake loss mitigation fund cash & investments | (18,589,764) |
| | Revenue Bond Proceeds | (682,657,495) |
| | Less: Debt Service | (55,445,250) |
| | Interest Receivable | 21,920,430 |
| | Securities Receivable | 39,127,684 |
| | Premiums Receivable | 73,264,993 |
| | Capital Contribution Receivable | - |
| | Other Cash-Related Assets | 365,090 |
| | Accounts Payable & Accrued Expenses | (11,551,848) |
| | Accrued Reinsurance Premium Expense | - |
| | | |
| Liabilities | | |
| | Unearned premium collected | (266,160,050) |
| | Loss Reserve | (94,974) |
| | Securities payable | (32,727,818) |
| | | |
| | Total Available Capital | 5,384,813,815 |
| | | |
| Assessments | | |
| | Available for assessment in 2 nd IA layer | 1,656,000,000 |
| | Available for assessment in New IA layer [IA = Industry Assessment] | 238,000,000 |
| | | |
| Risk Transfer | | |
| | Available in all layers | 5,488,000,000 |
| | | |
| Bonds | | |
| | Revenue bonds issued 07/2006 | 315,000,000 |
| | Revenue bonds issued 11/06/2014 | 350,000,000 |
| | Revenue bonds outstanding 12/31/2017 | 210,000,000 |
| | | |
| Policyholder | | |
| Surcharges | | |
| | Surcharges assessed | - |
| | Surcharges outstanding | - |
| | | |
| Debt | | |
| | Line of credit available | - |