GOVERNING BOARD MEETING
THURSDAY, JUNE 11, 2020
9:00 A.M.

California Earthquake Authority

Date of Notice: Monday, June 1, 2020

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 conduct a **teleconference meeting**. Pursuant to California Insurance Code §10089.7(l), the Bagley-Keene Open Meeting Act applies generally to meetings of the Governing Board, and the meeting is open to the public—public participation, comments, and questions will be welcome for each agenda item. Pursuant to Insurance Code §10089.55, please take further notice that this meeting relates to the business of earthquake insurance conducted by CEA.

Pursuant to Governor Newsom's Executive Order N-29-20, issued March 17, 2020, certain provisions of the Bagley-Keene Open Meeting Act are suspended or waived during the declared State of Emergency in response to the COVID-19 pandemic. Consistent with the Executive Order, in order to promote and maximize social distancing and public health and safety, this meeting will be conducted by teleconference only. None of the locations from which Governing Board members will participate will be open to the public. All members of the public shall have the right to observe the meeting and offer comment at this public meeting as described in this Notice.

DATE: **Thursday, June 11, 2020**

TIME: **9:00 a.m.**

TELECONFERENCE ACCESS:*

Dial-in Number: 1 (669) 900-6833
Enter Meeting ID: 850 1847 3188 #

Public Participation: The telephone lines of members of the public who dial into the meeting to observe and comment will initially be muted to prevent background noise from inadvertently disrupting the meeting. Phone lines will be unmuted during all portions of the meeting that are appropriate for public comment to allow members of the public to comment. Please see additional instructions below regarding Public Participation Procedures.

*** CEA is not responsible for unforeseen technical difficulties that may occur in the audio feed.**

PUBLIC PARTICIPATION PROCEDURES: All members of the public shall have the right to observe the meeting and offer comment at this public meeting. The member of the Governing Board acting as Chair of the meeting will indicate when a portion of the meeting is to be open for public comment. **Any member of the public wishing to comment must press *9 on their phone.** Pressing *9 will notify the call moderator that you wish to comment, and you will be placed in line to comment in the order in which requests are received by the moderator. When it is your turn to comment, the moderator will unmute your line and announce your opportunity to comment. The Chair of the meeting reserve the right to limit the time for comment. Members of the public should be prepared to complete their comments within approximately 3 minutes, but more or less time may be allotted by the Chair.

ACCESSIBILITY FOR DISABLED PERSONS: Persons who, due to a disability, need assistance in order to participate in this meeting should, prior to the meeting, contact CEA's ADA Coordinator either by phone by dialing (916) 661-5400, or by e-mail addressed to EEO@calquake.com and CEABoardLiaison@calquake.com. TTY/TDD and Speech to-Speech users may dial 7-1-1 for the California Relay Service to submit comments on an agenda item or to request special accommodations for persons with disabilities. 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 CEA prepares for its Board meetings. Please contact Shannon McEuen by telephone, toll free, at **(877) 797-4300** or by email at CEABoardLiaison@calquake.com. We would appreciate hearing from you at least five days before the meeting date to best allow us to meet your needs.

AGENDA

Preliminary Matters

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 April 10, 2020, CEA Governing Board meeting.

CEA Enterprise – Executive and Operations Reports

3. Executive Report by Chief Executive Officer Glenn Pomeroy, which will include among other things a report on CEA's response to the COVID-19 crisis and legislative activities of interest to CEA, and an introduction to the new CEA Chief Communications Officer.
4. Mr. Pomeroy will seek Board approval to permit CEA to contract to hire Chief Catastrophe Response and Resiliency Officer.
5. Chief Financial Officer & Chief Insurance Operations Officer Tom Hanzel will present to the Board the quarterly CEA financial report.
6. Mr. Hanzel will seek Board approval for the annual set-aside of a statutory portion of CEA investment income for transfer into the CEA Earthquake Loss Mitigation Fund.
7. Mr. Hanzel will seek Board approval for revisions to the CEA's Guidelines for Securing Risk Transfer.
8. Kapil Bhatia, Managing Director of Public Finance for Raymond James & Associates, Inc.— CEA's independent financial advisor—will present to the Board the annual report on the state of the economy.
9. CEA independent financial auditor Plante Moran PLLC will present to the Board the results of its most recent audit of CEA, conducted pursuant to the standards of the Governmental Accounting Standards Board (GASB).
10. Chief Risk and Actuarial Officer Shawna Ackerman will deliver a quarterly report to the Board on the CEA enterprise-risk-management-program.
11. Chief Information Officer Michael Melavic will provide a status report on the purchase agreement with Microsoft for Azure cloud data hosting and related IT services.

Insure – Matters Related to CEA's Insurance Business

12. CPP Portfolio Manager, Ms. Sonya Berry, will provide a status report on CEA's Centralized Policy Processing program (CPP).

Mitigate – Matters Related to CEA's Mitigation & Research Missions

13. Chief Mitigation Officer Janiele Maffei will update the Board on developments in the CEA mitigation programs (CRMP Earthquake Brace+Bolt, and CEA Brace+Bolt) and the CEA Research Program.

CONCLUSION

14. Public comment on matters that do not appear on this agenda and requests by the public that those matters be placed on a future agenda.
15. The Board will meet in closed session to discuss personnel matters, as permitted by California Government Code section 11126, subdivision (a).
16. Adjournment.

For further information about this notice or its contents:

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To view this Notice on the CEA website, to access meeting materials, or to learn more about CEA, please visit www.EarthquakeAuthority.com.

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11 June 2020

Agenda Item 2: Meeting minutes

Recommended Action: Approve meeting minutes

Review/approve minutes of the April 10, 2020 meeting of the CEA Governing Board.

CALIFORNIA EARTHQUAKE AUTHORITY
GOVERNING BOARD MEETING
MINUTES

Friday, April 10, 2020

Location: California Earthquake Authority
Teleconference Meeting Pursuant to Governor Newsom's Executive Order N-29-20, issued March 17, 2020

Members of the Governing Board in attendance:
Kasey O'Connor, Designee of State Treasurer Fiona Ma
Michael Martinez, Designee of Insurance Commissioner Ricardo Lara
Jeff Wood, Designee of Speaker of the Assembly Anthony Rendon
Craig Fry, Designee of Chair of the Senate Rules Committee Tony Atkins

Members of the CEA staff in attendance:
Glenn Pomeroy, Chief Executive Officer
Sheri Aguirre, Strategic Initiatives & External Relations
Shawna Ackerman, Chief Risk & Actuarial Officer
Sonya Berry, Centralized Policy Processing Portfolio Manager
Tom Hanzel, Chief Financial Officer & Chief Insurance Operations Officer
Susie Hernandez, Legislative Director
Laurie Johnson, Enterprise and Strategic Risk Advisor
Janiele Maffei, Chief Mitigation Officer
Shannon McEuen, Governing Board Liaison
Michael Melavic, Chief Information Officer
Kim Owen, Chief Information Security Officer
Niki Wehling, Senior Creative Services Specialist
Tom Welsh, General Counsel & Acting Chief Operations Officer
Joe Zuber, Senior Counsel

Preliminary Matters

1. Meeting call to order.

Chief Executive Officer Pomeroy opened the meeting at 1:04 p.m.

Ms. O'Connor agreed to chair the meeting.

Mr. Pomeroy noted that this was the first teleconference board meeting that the CEA has held. He provided instructions for Board members to ask questions and for the public to make comments.

Ms. O'Connor called the meeting to order.

Ms. McEuen announced that a quorum was present.

2. **Consideration and approval of the Minutes of the December 11, 2019 CEA Governing Board meeting.**

   MOTION: Mr. Martinez moved to adopt the December 11, 2019 meeting minutes. Ms. O'Connor seconded. Motion carried unanimously.

3. **Consideration and approval of the minutes of the January 30, 2020 CEA Governing Board meeting.**

   MOTION: Mr. Martinez moved to adopt the January 30, 2020 meeting minutes. Ms. O'Connor seconded. Motion carried unanimously.

CEA Enterprise – Executive and Operations Reports

4. **Executive Report by Chief Executive Officer Glenn Pomeroy, which will include among other things a report on CEA's response to the COVID-19 crisis and legislative activities of interest to the CEA.**

Mr. Pomeroy reported that in response to Governor Newsom's initial press conference on February 27, the CEA immediately formed a COVID response team and began testing its capability to move to a telework platform. A Board meeting scheduled for March 12 had to be cancelled. By March 17, the CEA had moved all employees to a complete telework platform.

The organization has remained open for business. The internal communications capability is robust; weekly all-staff conference calls are a goal. The CEA staff – approximately 160 people – has been able to stay focused on its public mission of Educate, Mitigate, and Insure. The CEA response to an earthquake at this time would be the same as before.

Addressing an identified need for greater training, 30-35 staff held a simulated post-event earthquake drill on March 11. More drills are to follow in the future.

Ms. Hernandez reported on legislative outreach efforts. This year the CEA has focused on engaging more with legislative members to share information about the CEA and its role in the state.

- CEA staff met with legislative members and their staff to provide information about the Brace + Bolt program, which is now in 55 Assembly districts and 26 Senate districts. CEA staff encouraged them to help get the word out to their constituents about the sign-up period, which was late February through mid-March.

  At the meetings in various districts, members were engaged and interested in getting more homes in their districts retrofitted and reaching out to their constituents.

- CEA staff has been planning legislative briefings at the Capitol to help educate legislative staff about the CEA and the newly-created Wildfire Fund. With the current crisis at hand, the briefings have been temporarily postponed.

- CEA staff is monitoring the Legislature as they figure out how to conduct their business in the midst of this crisis. The CEA will adapt to any changes as necessary.

Mr. Pomeroy reported on federal legislation, HR 5494. Congress is now concentrating on COVID. However, the CEA-sponsored federal bill continues to move forward: last week the bill picked up another endorsement letter from the National Council of Insurance Legislators. The CEA challenge is to find a legislative vehicle upon which to attach the bill.

Laurie Johnson, this year's President of the Earthquake Engineering Research Institute (EERI), reported on the conference held last month in San Diego. It was cohosted with the Federal Alliance for Safe Homes (FLASH), and was done under the auspices of FEMA's role as a partner in the National Earthquake Hazards Reduction Program. The conference is a multi-disciplinary gathering for engineering, policy, and practice, as well as an exchange for scientists to learn from each other and develop earthquake program management.

A major piece of the technical content was the work of the San Diego chapter; they have been working on an earthquake planning scenario for San Diego for about five years, and they unveiled it at the conference. The scenario is for a magnitude 6.9 earthquake on the Rose Canyon fault, designated as active in 1991. It runs directly underneath downtown San Diego. An earthquake could generate building and infrastructure losses totaling $38 billion. Another major issue is that this fault would bisect a number of infrastructure systems and render everything west of the fault line isolated for many months.

CEA was the lead sponsor for the conference Mr. Pomeroy noted that CEA Chief Mitigation Officer Janiele Maffei played an important leadership role at the conference as well. Nationally she is a leading residential earthquake mitigation expert.

Questions

Mr. Martinez asked about the status of HR 5494. Mr. Pomeroy answered that in February the lead author, Congressman Mike Thompson (Napa) had wanted a hearing on the bill to occur within the next 4 to 6 weeks. That plan was derailed by the COVID-19 crisis. However, CEA now has bipartisan co-sponsors from five different states. A hearing would allow the bill to get onto the House Ways and Means Committee calendar for this year. Once Congress returns to full functions, Congressman Thompson is going to look for a way to move the bill, hopefully this year.

Mr. Wood asked if any particular area of the state has been found where legislative outreach has not been made to the members. Mr. Pomeroy answered that strategically the CEA had focused this first wave on districts in which Earthquake Brace + Bolt grants were going to be available during the 30-day sign-up period. He noted that there has been a record number of sign-ups for grants this year, partly because of some legislators making outreach to their constituents. The next go-round will be an effort to pick up districts into which there has not yet been outreach.

Mr. Wood suggested keeping a spreadsheet of members that could be checked off. With himself and Mr. Fry representing the Assembly Speaker and the Senate President Pro Tem, they offered to share the information with those offices to assist in the effort. Mr. Pomeroy stated that he would distribute a list to the Board of all the legislators with whom the CEA has met.

Ms. O'Connor asked about the federal Ways and Means Committee: had the CEA started with the California delegation – it includes Congressman Panetta, Congressman Gomez, Congresswoman Chu and potentially Congresswoman Brownley. Ms. O'Connor stated that her office was available to help should any follow-up be needed in the future with those members of the California congressional delegation.

5. **Chief Financial Officer & Chief Insurance Operations Officer Tom Hanzel will present to the Board the quarterly CEA financial report.**

Mr. Hanzel began with the five-year review of the financials. He stated that premium growth was up about 5%, while the policy count was up about 6%.

The CEA had a record year of investment income: $125 million, an investment income return of about 1.8% on CEA's portfolio. Loss and LAE Reserves ended the year at 3.8%, really driven by the Ridgecrest earthquake. CEA had approximately 900 paid claims, and anticipates that $2-3 million is going to be the ultimate loss amount paid for the Ridgecrest event.

Mr. Hanzel spoke about the impact of COVID on the CEA.

- Reinvestment rate. Last year CEA was able to reinvest maturing bonds at a yield of between 1.6% to 1.8%. Due to the disruption in the market, CEA's current reinvestment rate has dropped to just 0.25%. With the material reduction of Treasury market yields, the Treasury and the Federal Reserve have acted. Nonetheless, CEA is planning for markedly lower investment income in the future until the markets recover from the COVID situation.
- Premium Revenue. Predicting total premium revenue for 2020 and beyond has become increasingly difficult due to COVID-related economic and market disruptions. Based on history, in particular the 2008 recession, CEA does not currently expect a material change in annual premium revenue.
- Risk transfer. The reinsurance and risk transfer markets are still functioning and CEA staff is closely monitoring the markets to manage through unexpected changes that may occur.

Mr. Hanzel gave a wrap-up of the Ridgecrest event and discussed how such an event can drive growth. CEA was seeing less than 1% growth in the first six months of the year prior to the Ridgecrest earthquake. Thereafter, growth was closer to 6%, mainly in the three to four months after the event. The pace of growth has now dropped less than 1% per month. This simply illustrates that a significant magnitude earthquake event that gets big headlines does drive growth.

The claims-paying tower shows that CEA continues to have greater than the 1-in-400-year claim-paying capaicty. Year over year CEA increase total claim-paying capacity by about $680 million. In January, the CEA risk-transfer team was able to renew an expiring $242.4 billion reinsurance layer and add almost $700 million of additional reinsurance limit, for a combined increase in capacity of about $3.1 billion, which included the addition of three new reinsurers to CEA.

With regard to CEA's strength rating, AM Best re-rated CEA and confirmed its existing rating: A- Excellent with a Stable outlook.

Mr. Hanzel also addressed the budget. CEA has a statutory cap on basic administrative expenditures of no more than 6% of premium in any year. CEA ended 2019 at about 4.3%, having spent approximately 92% of the 2019 budgeted expenses. The largest favorable variances on spending were compensation and benefits, with budget savings driven by open and unfilled staff positions, and a timing issue with the purchase of some IT hardware that was received paid for in January 2020 rather than in Q4 2019.

Non-statutory expenditures were up by about $13 million versus the CEA's midyear budget revision, which was driven by the need to purchase more reinsurance to keep pace with the unexpected growth in the second half of 2019 following the Ridgecrest earthquake.

All expenses in the mitigation budget are in line with expectations. The mitigation and research department spent a little less than 100% of its budget, with no material variances on any line items.

CEA closed the issuance of $400 million of short duration revenue bonds on March 17, after pricing them on March 5. The interest rate CEA will pay on these bonds was significantly more favorable to CEA than had been planned, due to a rally in the bond markets just prior to pricing. The planned September 1 maturity date was also shortened to a July 1 maturity, resulting in addition interest savings. Issuing the short-term debt resulted in a one-year push of any reduction in the second Industry Assessment Layer (IAL), enabling a net savings on reinsurance premiums of almost $9 million for 2021. Fitch rated our bonds with an F1+ which is their highest short-term rating.

CEA postponed the proposed 2020 long-term bond issuance and will probably revisit those in the third quarter. CEA is looking at potential alternative structures of how to issue that debt.

Regarding the future issuance of short-term debt, at the January meeting of the Board, the Board requested that CEA engage with our various stakeholders by forming a working group. CEA is developing this idea and has located a number of Participating Insurers who wish to participate.

Mr. Hanzel then reported the status of the work of consulting firm Ernst & Young (EY), approved by the Board in September 2019, to do a claims review process and advise on CEA's readiness to handle a high-volume claim event. EY completed its evaluation and provided 12 recommendations. A cross-functional team within CEA has been meeting every two to three weeks reviewing, prioritizing, staffing, and working through the implementation phase of the recommendations.

Projects currently underway:

- Dr. Laurie Johnson is taking the lead on revising and updating CEA's earthquake Guidelines and Response plan.
- CEA is undertaking holistic stress tests, looking at them from the perspective of technology, focused on CEA's centralized policy and claims administration system (CPP) and the systems of the participating insurers.
- CEA is enhancing communication capabilities including its phone system.

Questions and Discussion

Mr. Martinez asked about the overall impact on investments during this time period given COVID-19, and asked if CEA should revisit anything pertaining to investment policy strategy. Mr. Hanzel answered that the investment policy authorizes investments only in US Treasuries with very limited highly rated corporate securities, so the policy is already low risk and protective of principle. COVID-19 has resulted, short-term, in an unrealized gain in CEA's portfolio. Ultimately that gain will come off as bonds mature. Internally CEA has been debating its conservative investment policy to assess whether to expand options to increase investment earnings. CEA is governed by Government Code 16430, which does provide some latitude of investing in different types of government securities. If CEA management determines that changes can be made to the investment policy without materially increased investment risks, CEA will come back to the Board those recommendations.

Mr. Fry asked what CEA is doing for the people who are going to be faced with paying earthquake insurance versus putting food on the table. How will this impact our organization? Mr. Hanzel answered that one of our Board members – the Commissioner – had recently come out with a memorandum requesting that all insurance carriers in the state place a 60-day moratorium during which no policies could be canceled for non-payment. The CEA has been engaging with participating insurers and analysts to understand how they are interpreting and managing that request. The CEA fully supports the request and will be enacting it.

Mr. Martinez stated that the Commissioner has issued a series of notices that are sent out publicly on this topic. He suggested that CEA staff look at the website for additional notices of interest.

6. **Mr. Hanzel will seek Board authorization to set the CEA participating insurers' respective maximum earthquake-loss funding assessment levels, effective April 30, 2020.**

Mr. Hanzel stated that this is an annual statutory process of advising each participating insurer of its share of the Industry Assessment Layer based on each company's California market share. This time a new participating insurer – Amica – has rolled all of its earthquake insurance policies onto the CEA platform, which changes the calculation and the size of the total assessment layer.

Mr. Hanzel showed the calculation of the assessment layer looking at the historic market share. When Amica started their process of joining at the end of December 2017, the market share was 0.3886, resulting in a $7.8 million increase in the size of the industry assessment layer, which as of April 30, 2020 is $1,663,357,614. Mr. Hanzel explained the annual process by which this amount is allocated between the PIs.

Ms. O'Connor asked if this year is consistent with the past few years. Mr. Hanzel replied that the only thing that changed the absolute dollar amount was the addition of Amica. There is not material movement at all in the allocation among the PIs.

Mr. Hanzel requested approval of the second IAL maximum earthquake-loss-funding amount of $1,663,357,614.

Ms. O'Connor confirmed the request as shown in Attachment A, effective April 30, 2020. She requested a motion for the Board to adopt the CEA market-share percentages shown in Attachment B, also effective April 30, 2020, which are going to be used to determine the maximum earthquake-loss-funding assessment levels for CEA participating insurers. Lastly she requested a motion for the Board to authorize CEA staff to notify each participating insurer of its respective April 30, 2020 maximum earthquake-loss-funding assessment level responsibility.

> **MOTION**: Mr. Martinez moved to accept the recommendations as stated on slide 33 of Mr. Hanzel's presentation and verbalized by the Acting Chair. Ms. O'Connor seconded.

There was no public comment.

> **VOTE**: Motion carried unanimously with a vote of 2.

7. **Senior Staff Counsel Joe Zuber will seek Board approval for statutory revisions to CEA earthquake policy contracts and CEA claim manual.**

Mr. Zuber stated that the request was for some technical changes to the language of the CEA insurance policy forms and corresponding changes to the claim manual. The policy changes do not require any changes in rates. They all result from recent statutory changes that affect insurance policy requirements for all California residential property insurance policies.

The requirements have followed the losses and issues that came out of the devastating wildfires over the last few years.

The changes to the policy forms fall into three buckets:

- A clarification to the building code upgrade coverage provisions to explicitly enable policyholders to recover that building code upgrade coverage where they are buying or building a different home in a different location, instead of rebuilding their destroyed home.
- A change to the conditions of the policy that provides policyholders whose losses arise out of a state of emergency with an additional year, which would result in a total of two years, to bring a legal action based on the policy.
- A technical change to the conditions of the policy to provide a longer notice period for any non-renewal by the CEA of an existing policy. Mr. Zuber noted that non-renewals at the discretion of the CEA are rare.

Mr. Zuber mentioned that the changes are all related to recent amendments to the California Insurance Code. The CEA is going to comply with those new statutory requirements and apply them to our existing policy forms, and will interpret our existing policy forms in a manner consistent with those new statutory provisions.

Mr. Zuber requested approval of the newly revised policy forms and the claim manual, and requested that staff be instructed to submit those materials to the Insurance Commissioner for regulatory approval.

Questions and Discussion

Mr. Martinez noted that the memo provided to Board members and the public indicated that policy changes would become effective July 1, 2020, anticipating that these changes could be approved by the California Department of Insurance and subsequently implemented by the CEA on or before that statutory deadline. Mr. Martinez asked if that would be feasible given the current state of emergency. Mr. Zuber confirmed that the changes will not have a rate impact which would affect the amount of time needed to review and approve the amended policies and manual. The July date is actually aspirational because of the current crisis. However, CEA will deem these provisions to be in force even if not approved and implemented by that date.

Mr. Martinez commented that he would support moving this forward. He kindly reminded the Board that the Department of Insurance does review all of these filed policy forms and manuals. His subsequent motion and vote to approve was to send the forms to the Department as part of that process and not to presuppose or predetermine any subsequent Department staff decision of deliberative process. Mr. Zuber concurred that the Commissioner has a regulatory duty to look at the changes.

> **MOTION**: Mr. Martinez moved to approve the proposed revisions to the CEA policy forms, and to instruct staff of the CEA to submit these proposed revised policy forms to the Insurance Commissioner/Department of Insurance for regulatory review and approval; as well as to approve the proposed revisions to the CEA claim manual, and instruct staff to submit the proposed revised Claim Manual also to the Insurance Commissioner/Department of Insurance for regulatory review and approval. Ms. O'Connor seconded.

There was no public comment.

> **VOTE**: Motion passed unanimously with a vote of 2.

8. Mr. Pomeroy will propose, for Board approval, a routine update to CEA's Governing Board resolutions pertaining to certain CEA bank accounts.

Mr. Pomeroy stated that periodically the Board confers upon certain members of the CEA staff the authority to perform banking transactions by means of signing authority with the various banks. Mr. Pomeroy referred to Attachment A, the standard resolution that the Board has used.

Signing authority would go to CFO Tom Hanzel, General Counsel Tom Welsh, and Chief Executive Officer Pomeroy. The resolution confers to them the ability to transact business with the banks, subject to all the internal controls that have been developed in the CEA over time.

> **MOTION**: Ms. O'Connor moved to adopt the staff recommendation that the Governing Board adopt the banking resolution in substantially the form provided by CEA's custodial bank. Mr. Martinez seconded.

There was no public comment.

VOTE: Motion passed unanimously with a vote of 2.

9. **Chief Information Security Officer Kim Owen will seek Board authorization to contract for cyber insurance.**

Ms. Owen reported that the CEA has been looking into cyber insurance for a couple of years now. At this point the cyber insurance industry has matured a great deal. Although the number of data breaches has increase significantly, insurance companies have gained a lot of experience and they have a financial incentive to ensure that their customers minimize the damage.

Ms. Owen pointed out that cyber insurance companies offer a lot of resources and skill sets that the CEA does not have in-house, such as forensics expertise.

She stated that the last major milestone that staff had completed in the process was submitting our insurance application. It was done last week, and is currently being shopped out by our broker (Willis). After they give a recommendation of three policies to choose from, staff will do an internal review, selection, and completion of the purchase. The target date has been moved to May 30.

Ms. Owen requested authorization to move forward with the purchase by May 30. This action has been analyzed by a cross-organizational team that includes finance, legal and IT. Staff was requesting to move forward with the purchase with coverage limits of up to $150 million, then annual aggregate premiums not to exceed $1.5 million.

Questions and Discussion

Ms. O'Connor asked if the amount were to exceed $150 million – would it be in staff's capacity to restructure? Mr. Melavic confirmed that staff could renegotiate to keep it under $150 million. If it went beyond the $150 million or the $1.5 million in premiums, staff would have to come back to the Board.

Mr. Martinez asked if this was already in the Board-approved budget, or if it would be considered a variance or something needing to be updated in the current existing budget. Mr. Hanzel answered that it would be a variance so it would come through via the adjustment/augmentation process in a subsequent Board meeting.

Mr. Martinez asked if cyber liability risks are covered by CEA's existing organizational insurance. Mr. Welsh stated that the CEA's underlying suite of corporate insurance policies generally exclude these kinds of risks; that is why the cyber insurance market arose. Commercial general liability and other types of insurance policies normally maintained by businesses exclude these kinds of asymmetrical cyber risks. He added that another driver for this need is that as the CEA continues to roll participating insurers onto its CPP platform, the larger insurers want assurance that CEA is carrying high-quality cyber insurance – we are potentially creating an additional cyber risk for the PIs.

Mr. Fry asked if staff had looked at piggybacking off another agency's current insurance claims. Mr. Welsh answered that in a normal governmental agency there are those opportunities, but here the CEA is not part of the state budget. If were to suffer a loss from a cyber intrusion, CEA could not pay the loss from state treasury funds, and that by purchasing cyber insurance, CEA is protecting policyholder assets from losses.

Ms. O'Connor commented that in this current situation, with teleworking due to COVID, CEA faces greater risk and needs to ensure that all cyber security and cyber insurance are up to the task of protecting policyholder assets.

> **MOTION**: Ms. O'Connor moved to authorize the purchase of cyber insurance with coverage limits of up to $150 million and annual aggregate premiums not to exceed $1.5 million. Mr. Martinez seconded.

There was no public comment.

> **VOTE**: Motion passed unanimously with a vote of 2.

10. General Counsel and Acting Chief Operations Officer Tom Welsh will report on the procurement and implementation of a Human Resource Management Team.

Mr. Welsh reported that a couple of years ago a project began for exploring the opportunity to purchase enterprise-wide software solutions where a single platform from a single software vendor would integrate the entire set of CEA's operational software needs. The price point had been high, so staff solved this requirement through the acquisition of smaller function-specific software solutions and through upgrades of existing software.

The final resource software requirement was the purchase of a system to automate many of the manual HR functions at CEA. Staff has procured a system called Dayforce by Ceridian that CEA is implementing and should go into service later this summer.

11. Chief Risk and Actuarial Officer Shawna Ackerman will deliver a quarterly report to the Board on the CEA enterprise-risk-management-program.

Ms. Ackerman stated that the ERM program continues to monitor the 12 priority risks in a steady-state or a current view, through a stressed post-earthquake perspective.

Ms. Ackerman displayed the ERM quarterly report.

She stated that the California Department of Insurance completed their Consumer Complaint Study which showed that CEA had no justified complaints in 2019.

She displayed a report conveying CEA's current status and outlook on each of the 12 priority risks in relation to COVID-19. CEA has been able to maintain normal and necessary business functions while all staff work from home. We have a negative outlook on risk-transfer, and are monitoring surplus and ratings to ensure that our partners continue to meet our risk-transfer guidelines.

CEA has reached out to all its critical vendors, including participating insurers, to ensure that they are available and able to understand the measures taken to respond to the pandemic. This is part of the business continuity process.

For the retrofitting programs, CEA has a negative outlook because of the limits on construction that are in place due to COVID-19.

Insure – Matters Related to CEA's Insurance Business

12. CPP Portfolio Manager Sonya Berry will provide a status report on CEA's Centralized Policy Processing program (CPP).

Ms. Berry stated that the CPP program provides the policy administration system for participating insurers to allow for the servicing of their policies. Currently nine PIs use the system – that comprises 13% of the CEA book of business. The goal is to have the remaining PIs on CPP by 2026.

Ms. Berry summarized the progress of the PIs in adopting the program.

- Toggle (an affiliate of Farmers) is a few weeks away from going live.
- State Farm is in the contract review cycle and is expected to start in late summer.

- Farmers is wrapping up discovery meetings and is soon to move into the contract review cycle.
- USAA is exploring CPP's capability and has inquired about timelines and implementation. As yet it has no projected timeline.

Ms. Berry gave further details on the four PIs.

The ticketing system (Desk.com) used by the CPP team to manage software tasks for the PIs who are using CPP will be retiring at the end of the first quarter of 2020, and staff has taken the opportunity to review available replacement software. CEA has acquired software from ServiceNow, and is currently implementing that new ticketing system; it is about four weeks away from launching. ServiceNow will enhance the tracking of work, metrics, and service-level agreements with PIs, as well as enabling PIs to submit and monitor status of their tickets.

CPP experienced a limited data security incident on February 28: one PI notified CEA of several reports that were producing results containing data from other PIs. The team quickly validated the report and worked with Insuresoft to mitigate the incident. Within 45 minutes all reports were disabled and analyses of the incident were conducted. The root cause was a set of optional reports that were unintentionally enabled for use on the system. Upon investigation, CEA determined that no other PIs had executed the vulnerable reports, which indicated that there had been no unaddressed compromise or release of any PI data.

CEA notified the impacted PIs and worked with the initial PI to ensure that any data from other PIs that it obtained when it identified the vulnerability was properly returned to CEA and otherwise not retained by that PI. CEA and Insuresoft identified immediately and implemented corrective actions and new controls to prevent this error from occurring in the future.

Ms. Berry displayed a slide representing the CPP budget as of the close of 2019. There were no changes and the expected expenditure through 2036 is on target.

13. Chief Mitigation Officer Janiele Maffei will update the Board on developments in the CEA mitigation programs (CRMP Earthquake Brace + Bolt and CEA Brace + Bolt) and the CEA Research Program.

Ms. Maffei stated that in February, the CEA had held a press conference in Pasadena to announce the 2020 Earthquake Brace + Bolt program. A homeowner volunteered to be part of the promotion of the program; his participation will be an effective addition. Local television, radio, and print media were a strong presence at the press conference. Assembly Member Holden and State Senator Portantino joined the event.

11,926 people registered during the month; the goal had been 10,000. However, the global pandemic was gaining momentum at that time.

In 2019 we had experienced 10 months of delay to work out some details with FEMA; the 2019 and 2020 programs are being funded by their Hazard Mitigation Grant Program. However, during the last months of 2019 we got 1,731 homeowners retrofitted.

We set the next goal for 4,400; but the challenges are now severe to the program from the state and county orders to stay home. The determination of the type of construction currently allowed is done by counties and local building departments. CEA customer service staff has called our major contractors as well as local building departments, and there was a wide spectrum of answers regarding construction allowed.

The city of Los Angeles is the least restrictive; building departments in smaller cities and towns have shut down. The program is going to be ready when the state is ready to proceed with construction. We have registrants at all different stages in the program. We are not sure when we can let the 4,400 people know that they have been selected for the next program.

The research programs can continue more easily because the majority are being done by engineers and academic professionals who can work at home. We have provided the capability for them to extend deadlines.

The expansion of the plan sets that we have is in the process of being converted to code. FEMA is closely involved, but their people have all been deployed to help with the pandemic so that is delayed.

The PEER project is delayed but not significantly.

The update of the CUREE document (guidelines for assessment and repair) is finished and is going to be uploaded to the CEA website, to be presented at our claim managers meeting.

The bridge project between the UCERF 3 and UCERF 4 project creates the probabilistic earthquake risk maps used to design new buildings, retrofit existing buildings, and establish our rates. It is slightly delayed.

Questions and Discussion

Ms. O'Connor asked if the deadlines for the grants to Californians for the Brace + Bolt program have been extended. Ms. Maffei answered that those in the 2019 program have had sufficient time to do the work. Those who have not been able to start the work are going to be in the same position as those whom we are going to let in this time. CEA will definitely be providing extensions.

Conclusion

14. Public Comment on matters that do not appear on this agenda and requests by the public that those matters be placed on a future agenda.

Mr. Pomeroy thanked the 162 people working at the CEA for the way they have taken on the changes of the past four weeks with determination and renewed commitment to the mission. He also thanked the members of the Board for taking the time today to help move this organization forward.

15. Adjournment

> **MOTION**: Ms. O'Connor motioned to adjourn the meeting. Mr. Martinez seconded. Motion carried unanimously.

The meeting was adjourned at 2:58 p.m.

Governing Board Memorandum

11 June 2020

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, which will include, among other things, a report on CEA's continued response to the COVID-19 crisis, an introduction to Chief Communications Officer Charlotte Fadipe, legislative activities of interest to the CEA, and efforts underway to ensure CEA's readiness for a major earthquake especially in light of the COVID-19 crisis.

CEA CALIFORNIA EARTHQUAKE AUTHORITY™
THE STRENGTH TO REBUILD®

Governing Board Memorandum

11 June 2020

Agenda Item 4: Chief Catastrophe Response & Resiliency Officer

Recommended Action: Authorize CEA to contract to employ Dr. Laurie Johnson in the capacity of Chief Catastrophe Response & Resiliency Officer

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Background

CEA was created in 1996 to play an integral role in the State's inevitable need to rebuild and recover after the next catastrophic earthquake. By insuring more than 1.1 million homes in high seismic risk areas of California, CEA is positioned to play a vital role in the recovery and resiliency of damaged communities and households when the time comes. In the past 24 years, CEA has built extraordinary financial and operational strength. This operational expertise was clearly recognized by the Legislature and key state leaders when they assigned CEA the responsibility of standing-up and administering the California Wildfire Fund.

CEA is built on a culture of continuous operational assessment and improvement. As reported to CEA Board at the April 10, 2020 Governing Board meeting, CEA recently engaged a consulting firm to conduct an end to end evaluation of CEA's readiness to handle the next large event. This independent evaluation produced a favorable overall assessment of CEA's readiness, and contained 12 recommendations for CEA to consider for potential operational enhancement. CEA is well underway in evaluating and acting on these recommendations, but has more to do.

The combination of CEA's undertaking of administration responsibilities for the Wildfire Fund, coupled with the need to implement EY's recommendations, has caused CEA to recognize the need to elevate to Executive Team level the responsibility for catastrophe response planning, claims administration and overall enterprise resiliency. To accomplish this, CEA staff is proposing the creation of a new executive level contract position of Chief Catastrophe Response & Resiliency Officer. This position will lead CEA's post-event response and claims handling responsibilities for both earthquakes and utility-caused wildfires. The costs for this position would be appropriately allocated between both the CEA Fund and the Wildfire Fund.

The Chief Catastrophe and Resiliency Officer will have primary responsibility over three vital functions:

Earthquake Insurance Claims Oversight: Following a damaging earthquake, CEA claims are adjusted and administered by the Participating Insurer that wrote the policy, pursuant to CEA claim paying guidelines. This arrangement recognizes the impracticality of CEA having at the ready its own adjusting force for the moment when the infrequent damaging earthquake strikes. Historically, CEA has taken a "passive" approach to preparing for a large event requiring significant claims adjusting work, communicating with Participating Insurer adjusters through an annual Claims Manager meeting, and other training opportunities, and relying on the companies to respond to major events based on their internal response strategies. The Chief Catastrophe Response & Resiliency Officer will lead the development of strategies to enable the organization to assume a more active role in the oversight of the industry's response to a major earthquake, particularly in providing policy guidance and ensuring claim handling consistency among the PIs.

Wildfire Fund Claims Oversight: The California Catastrophe Response Council recently appointed CEA Administrator of the California Wildfire Fund. Like CEA, the Council and Administrator have post-event claim paying responsibilities as well, but the scope of this work is very different from that of monitoring the administration and payment of earthquake insurance claims. The Council is charged with the responsibility to approve the claims procedures for the "review, approval, and timely funding of eligible claims." Those procedures are currently under development within CEA and that on-going process will be greatly enhanced by the application of Dr. Johnson's particular expertise in this area. The Chief Catastrophe Response & Resiliency Officer will oversee this consulting project and the subsequent build out of a post-event claims oversight structure for this new, unique Fund.

CEA Post-Event Response Management: In addition to overseeing all CEA claims responsibilities (both earthquake and wildfire), the Chief Catastrophe Response and Resiliency Officer will also serve as CEA Incident Manager following a major event, and will lead all activities to prepare the organization in advance.

Analysis

When creating CEA, the Legislature granted the Governing Board very broad and flexible statutory authority to hire any staff, managers or executives it determines are necessary and appropriate for the effective operation of CEA. CEA's governing statute provides:

> *"The Board shall have the power to conduct the affairs of the authority and may perform all acts necessary in the exercise of that power.* ***Without limitation****, the board may (1)* ***employ or contract with officers and employees to administer the authority.****....(13) perform all acts that relate to the function and purpose of the authority, whether or not specifically designated in this chapter".*
> (Cal. Ins. Code § 10089.7)

The Governing Board clearly has the statutory authority to approve CEA's recommendation to authorize this new executive level position. It also has a clear factual basis to authorize the position. CEA's operational need for sophistication and recognized expertise on catastrophe response planning has never been greater. Today CEA is more integral to California's catastrophe resiliency than at any time in its history. The addition of this executive level role will further assure the Governing Board and the State that CEA will efficiently and effectively execute on its catastrophe response obligations when that time arrives. As is demonstrated both by Dr. Johnson biography (attached as Attachment 1) and CEA and the Governing Board's direct experience with Dr. Johnson from her nearly 4 years of consulting service to CEA, Dr. Johnson is uniquely qualified to fill this new leadership position.

Recommendation

Authorize CEA (1) to create the position of Chief Catastrophe Response & Resiliency Officer, and (2) to contract with Dr. Laurie Johnson to fill that position.

LAURIE A. JOHNSON, PHD FAICP

Enterprise and Strategic Risk Advisor, California Earthquake Authority
Principal, Laurie Johnson Consulting | Research

Laurie Johnson is an internationally-recognized urban planner specializing in disaster recovery and catastrophe risk management. She began her planning career working with San Francisco Bay Area communities that would soon be struck by the 1989 Loma Prieta earthquake, and over the years, has developed an extensive portfolio of disaster recovery and resilience expertise for an array of hazards, including earthquakes, wildfires, landslides, floods, and hurricanes, across the U.S. and the world.

She has researched or helped to manage community recovery following many of the world's major urban disasters, including the 2011 Tohoku Japan earthquake and tsunami, 2010 and 2011 Canterbury New Zealand earthquakes, and 2005 Hurricane Katrina. Her global experience over three decades is captured in her recent book, *After Great Disasters: An In-depth Analysis of Six Countries Approaches to Community Recovery*. She also coauthored the book, *Clear as Mud: Planning for the Rebuilding of New Orleans*, which details the city's complex recovery planning processes of which she helped to lead.

In 2006, she founded her consultancy in order to apply her unique blend of professional practice and research in urban planning, geosciences and risk management to help communities, governments, and industry sectors address the complex urban challenges posed by natural disasters and our changing climate. She has served as Enterprise and Strategic Risk Advisor for the California Earthquake Authority since 2016, developing its enterprise-wide risk management program, leading cross-organizational enhancements of CEA's earthquake response planning, and facilitating an ad hoc insurance industry working group preparing for a major California earthquake. She has also served as a resilience and recovery advisor for the New Zealand Earthquake Commission and City of Christchurch following the 2010-2011 Canterbury earthquakes and the City of Santa Rosa and Sonoma County, California following the 2017 wildfires. She is a lead author on long-term recovery for the U.S. Geological Survey's HayWired scenario – a M7 earthquake on the Hayward Fault and works with the California Geological Survey on incorporating tsunami hazard mapping into the state's Seismic Hazard Mapping program.

She was formerly a Vice-President for Technical Marketing and Catastrophe Response with Risk Management Solutions, where she was responsible for business planning and product management of the global suite of natural catastrophe peril models. She also built and led RMS' award-winning catastrophe response program supporting the global re/insurance industry 24/7 with intelligence, real-time event modeling and loss estimation, and field investigations. Prior to this, she was a consulting planner with EQE International (now ABS Consulting) and Spangle Associates, Urban Planning and Research.

Laurie has an extensive record of professional service, advocating for natural hazard mitigation and resilience policies, educating planners on their role in post-disaster recovery, and investigating the effects of major earthquakes and other extreme events around the world. She is a member of the steering committee of the Geotechnical Extreme Event Reconnaissance (GEER) organization and the Learning from Earthquakes program executive committee of the Earthquake Engineering Research Institute (EERI). She is also the 2020 – 2022 President of EERI, on the Board of Trustees of the Earthquakes and Megacities Initiative and the Science Board of the Global Earthquake Model (GEM), and past chair of the U.S. federal advisory committee for the National Earthquake Hazards Reduction Program. She is a 2018 inductee into the College of Fellows of the American Institute of Certified Planners and holds a Doctor of Informatics degree from Kyoto University and a Master of Urban Planning and Bachelor of Science in Geophysics, both from Texas A&M University.

Governing Board Memorandum

11 June 2020

Agenda Item 5: Financial report

Recommended Action: No action required—information only

Chief Financial Officer Tom Hanzel will present the CEA financial report to the Board.

FINANCIAL REPORT

March 31, 2020

Financial Report Table of Contents

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

Financial Statements

California Earthquake Authority
Balance Sheet
as of March 31, 2020 and 2019

	2020	2019
Assets		
Cash and investments:		
Cash and cash equivalents	$ 149,861,290	$ 97,598,779
Restricted cash and equivalents	639,337,435	7,715,106
Restricted investments	165,042,468	448,142,072
Investments	6,689,514,641	6,157,289,646
Total cash and investments	7,643,755,834	6,710,745,603
Premiums receivable, net of allowance for doubtful accounts of $ 6,195,457 and $ 5,467,667	83,557,797	91,292,569
Capital contributions receivable	-	4,424,000
Due from California Wildfire Fund	257,748	-
Interest receivable	26,011,278	24,828,701
Securities receivable	-	62,469,637
Restricted securities receivable		3,122,537
Prepaid reinsurance premium	20,377,741	19,919,025
Prepaid transformer maintenance premium	2,724,561	770,407
Equipment, net	138,556	194,115
Due from FEMA	3,987,160	-
Other assets	574,059	95,642
Total assets	$ 7,781,384,734	$ 6,917,862,236
Liabilities and Net Positions		
Unearned premiums	$ 417,721,176	$ 411,674,924
Accounts payable and accrued expenses	10,643,141	5,037,561
Due to CRMP	3,987,160	-
Loss and loss adjustment expense reserves	2,132,819	131,243
Securities payable	1,401,452	56,899,921
Revenue bond payable	400,000,000	105,000,000
Revenue bond interest payable	199,452	736,313
Total liabilities	836,085,200	579,479,962
Net position:		
Restricted, expendable	410,651,813	361,783,637
Unrestricted, participating insurer contributed capital	790,656,796	790,656,796
Unrestricted, State of California contributed capital	298,376,536	279,199,255
Unrestricted, all other	5,445,614,389	4,906,742,586
Total net position	6,945,299,534	6,338,382,274
Total liabilities and net position	$ 7,781,384,734	$ 6,917,862,236

California Earthquake Authority
Statement of Revenues, Expenses and Changes in Net Position
for the Period Ended March 31, 2020 and 2019

Unaudited

	2020	2019
Underwriting income:		
Premiums written	$ 194,810,266	$ 195,878,310
Less premiums ceded - reinsurance	(101,901,240)	(92,511,828)
Net premiums written	92,909,026	103,366,482
Change in unearned premiums	5,871,902	5,773,277
Net unearned premiums	5,871,902	5,773,277
Net premiums earned	98,780,928	109,139,759
Expenses:		
Losses and loss adjustment expenses	(1,636,358)	16,129
Participating Insurer commissions	19,484,309	19,589,566
Participating Insurer operating costs	6,247,192	6,362,247
Reinsurance broker commissions	700,000	700,000
Pro forma premium taxes equivalent	4,581,075	4,606,086
Other underwriting expenses	12,254,380	10,569,978
Total expenses	41,630,598	41,844,006
Underwriting profit	57,150,330	67,295,753
Investment income	31,149,632	29,760,220
Unrealized Gain/(Loss)	157,400,801	41,392,657
Other income	129,092	125,366
Grant revenue	3,834,996	62,980
Grant expenses	(3,834,996)	(62,980)
Financing expenses, net	(692,753)	(695,146)
Earthquake Loss Mitigation Fund expenses	(4,323,248)	(3,681,874)
State of California premium tax contribution equivalent	4,581,075	4,606,086
Increase in net position	245,394,929	138,803,062
Net position, beginning of year	6,699,904,605	6,199,579,212
Net position, end of year to date	$ 6,945,299,534	$ 6,338,382,274

CALIFORNIA EARTHQUAKE AUTHORITY
Insurance Services
Budgeted and Actual Expenditures
As of March 31, 2020

	(a)	(b)	(c)	(d) (d=a+b+c)	(e)	(f) (f=d-e)	(g) (g=e/d)
	Approved 2020 Budget 1/1/2020	**Adjustments**	**Augmentations**	**2020 Budget after Augmentations and Adjustments**	**Actual Expenditures**	**Augmented & Adjusted Approved Budget (d) vs. Actual Expenditures (e)**	**Percentage used of Augmented & Adjusted 2020 Budget**
Human Resources:							
Compensation and Benefits	$ 30,892,048	$ -	$ -	$ 30,892,048	$ 6,998,185	$ 23,893,863	22.7%
Travel	764,236	-	-	764,236	44,155	720,081	5.8%
Other	524,481	-	-	524,481	79,652	444,829	15.2%
Board Meeting	25,000	-	-	25,000	6,635	18,365	26.5%
Administration & Office	1,182,613	-	-	1,182,613	87,818	1,094,795	7.4%
EDP Hardware	773,995	-	-	773,995	433,903	340,092	56.1%
EDP Software	3,791,752	-	-	3,791,752	983,093	2,808,659	25.9%
Telecommunications	396,008	-	-	396,008	56,603	339,405	14.3%
Rent/Lease	1,569,529	-	-	1,569,529	344,077	1,225,452	21.9%
Compliance	30,000	-	-	30,000	-	30,000	0.0%
Government Affairs	600,000	-	-	600,000	46,000	554,000	7.7%
Insurance	232,560	-	-	232,560	-	232,560	0.0%
Internal Audit	30,000	-	-	30,000	-	30,000	0.0%
Other	20,600	-	-	20,600	-	20,600	0.0%
Regulatory Expenses	10,000	-	-	10,000	-	10,000	0.0%
Risk Management	67,600	-	-	67,600	9,343	58,257	13.8%
California Wildfire Fund Allocation[2]	(1,200,000)	-	-	(1,200,000)	(241,407)	(958,593)	20.1%
Total Statutory Expenditures[1]	**$ 39,710,422**	**$ -**	**$ -**	**$ 39,710,422**	**$ 8,848,057**	**$ 30,862,365**	**22.3%**
Audit Services	121,500	-	-	121,500	11,134	110,366	9.2%
Capital Market	212,000	-	-	212,000	901,390	(689,390)	425.2%
Claims	473,000	-	-	473,000	221,110	251,890	46.7%
Grants	9,210,000	-	-	9,210,000	846,683	8,363,317	9.2%
Investment Services	3,560,500	-	-	3,560,500	884,187	2,676,313	24.8%
Legal Services	2,324,934	-	-	2,324,934	8,081	2,316,853	0.3%
Loss-Modeling	1,097,806	-	-	1,097,806	133,565	964,241	12.2%
Marketing Services	15,748,750	-	-	15,748,750	309,778	15,438,972	2.0%
Producer Compensation	85,000,000	-	-	85,000,000	19,484,309	65,515,691	22.9%
Participating Insurer Operating Costs	34,654,662	-	-	34,654,662	7,525,028	27,129,634	21.7%
Seismic Related Research	850,000	-	-	850,000	-	850,000	0.0%
Engineering Related Research	2,347,000	-	-	2,347,000	205,092	2,141,908	8.7%
Risk Transfer	363,648,800	-	-	363,648,800	102,601,240	261,047,560	28.2%
Total Non-Statutory Expenditures	**$ 519,248,952**	**$ -**	**$ -**	**$ 519,248,952**	**$ 133,131,597**	**$ 386,117,355**	**25.6%**
Total Budget Expenditures	**$ 558,959,374**	**$ -**	**$ -**	**$ 558,959,374**	**$ 141,979,654**	**$ 416,979,720**	**25.4%**

[1] Total 2020 Statutory Expenditures of $8.85 million were 4.5% of written premium. This is in compliance with the maximum permitted ratio of 6.0%.
[2] Reimbursement to CEA from the California Wildfire Fund for incurred expenses.

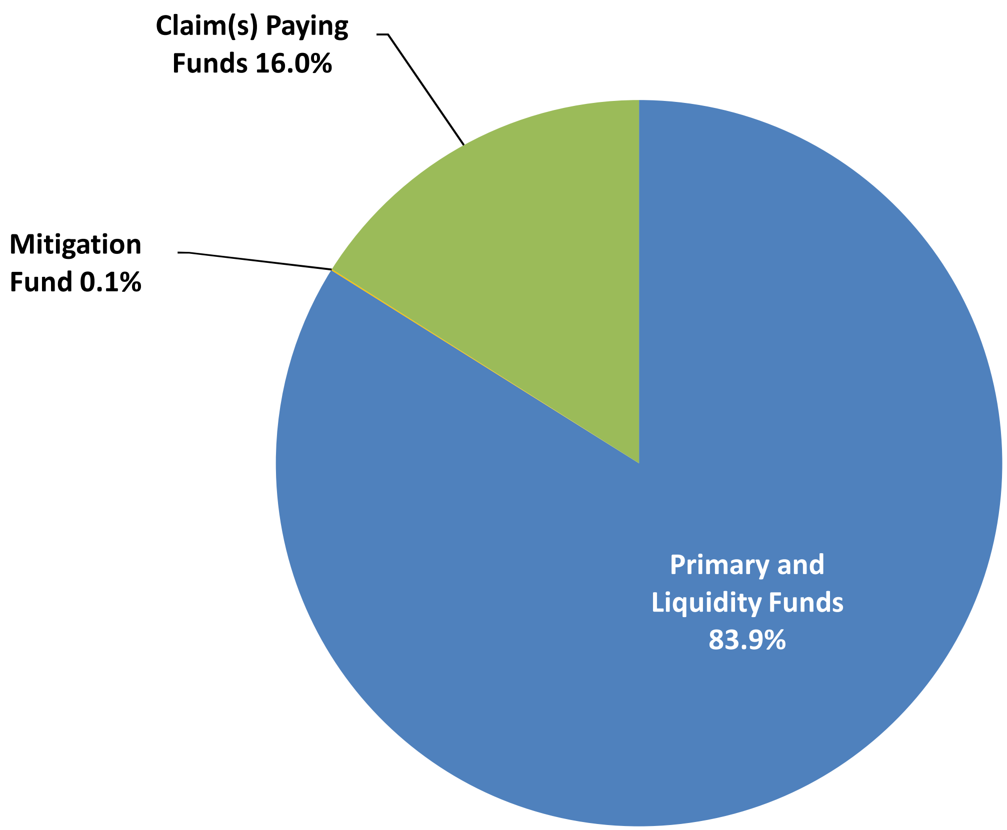
CALIFORNIA EARTHQUAKE AUTHORITY
Mitigation
Budgeted Expenditures and Actual Expenditures
As of March 31, 2020

	(a) Approved 2020 Budget 1/1/2020	(b) Adjustments	(c) Augmentations	(d) (d=a+b+c) 2020 Budget after Augmentations and Adjustments	(e) Actual Expenditures	(f) (f=d-e) Augmented & Adjusted Approved Budget (d) vs. Actual Expenditures (e)	(g) (g=e/d) Percentage used of Augmented & Adjusted 2020 Budget
Human Resources:							
Compensation and Benefits	$ 1,501,398	$ -	$ -	$ 1,501,398	$ 402,440	$ 1,098,958	26.8%
Travel	35,560	-	-	35,560	536	35,024	1.5%
Other	19,365	-	-	19,365	945	18,420	4.9%
Administration & Office	66,449	-	-	66,449	8,938	57,511	13.5%
Information Technology	840	-	-	840	-	840	0.0%
Telecommunications	20,500	-	-	20,500	2,803	17,697	13.7%
Rent/Lease	107,600	-	-	107,600	23,437	84,163	21.8%
Other	200,000	-	-	200,000	-	200,000	0.0%
Total Operating Expenditures	**$ 1,951,712**	**$ -**	**$ -**	**$ 1,951,712**	**$ 439,099**	**$ 1,512,613**	**22.5%**
CRMP Contribution	4,000,000	-	-	4,000,000	3,880,000	120,000	97.0%
Investment Services	9,600	-	-	9,600	1,311	8,289	13.7%
Marketing	500	-	-	500	1,400	(900)	280.0%
Engineering Related Research	100,000	-	-	100,000	-	100,000	0.0%
Total Other Expenditures	**$ 4,110,100**	**$ -**	**$ -**	**$ 4,110,100**	**$ 3,882,711**	**$ 227,389**	**94.5%**
Total Expenditures	**$ 6,061,812**	**$ -**	**$ -**	**$ 6,061,812**	**$ 4,321,810**	**$ 1,740,002**	**71.3%**

Investments

California Earthquake Authority
Investment Distribution at Market Value as of March 31, 2020

Market Value	**$7,146,562,844***
Primary and Liquidity Funds	83.9%
Mitigation Fund	0.1%
Claim(s) Paying Funds	16.0%
Total:	**100.0%**



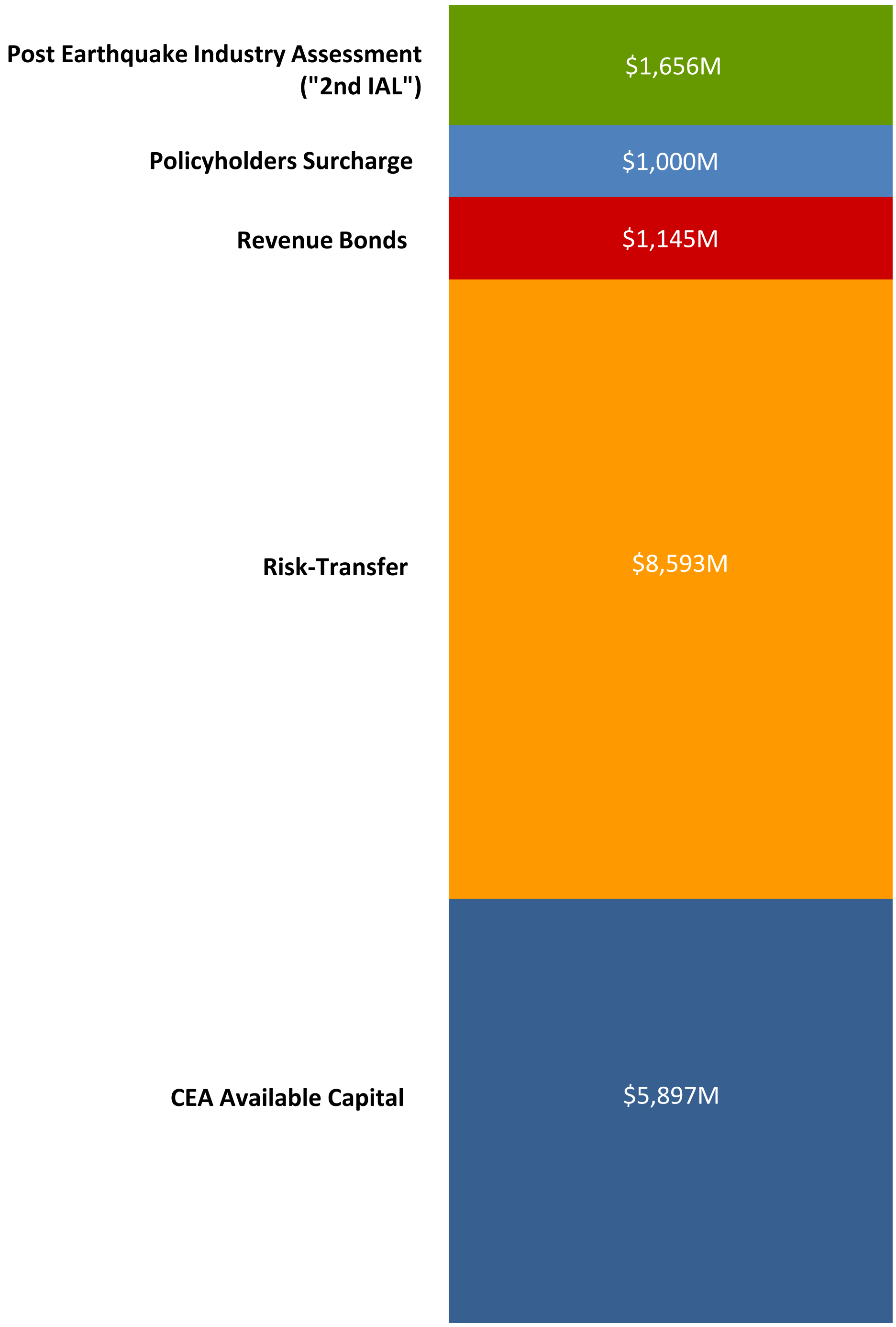
***Market Value does not include uninvested cash value**

Claim-Paying Capacity

California Earthquake Authority
Available Capital Report
as of March 31, 2020

Cash & Investments (includes capital contributions and premiums)	$	7,643,755,834
Earthquake Loss Mitigation Fund cash and investments	$	(4,326,982)
Interest & Securities Receivable	$	26,011,278
Premium Receivable	$	83,556,968
Other Assets + California Wildfire Fund (AR) + FEMA (AR)	$	4,818,967
Revenue Bonds and Restricted Receivables	$	(1,145,139,939)
Debt Service (Interest, Principal & Debt Service (Min. Bal.))	$	(400,199,452)
Unearned Premium Collected	$	(293,761,072)
Accounts and Securities Payable, and Accrued Expenses	$	(16,031,753)
Loss Reserves	$	(2,132,819)
CEA Available Capital	**$**	**5,896,551,030**

California Earthquake Authority
Claim-Paying Capacity
as of March 31, 2020



Total Capacity $18,291M

Note: Not drawn to scale

Risk-Transfer Programs

California Earthquake Authority
Current Risk-Transfer Program Summary
as of March 31, 2020

Traditional Reinsurance Contracts	Contract Period	Reinsurance Limit
2020 January Program Contract 1	January 1, 2020 December 31, 2020	1,064,075,000
2020 January Program Contract 2	January 1, 2020 December 31, 2020	269,375,000
2020 January Program Contract 3	January 1, 2020 December 31, 2020	75,000,000
2020 2021 January Program Contract 1	January 1, 2020 December 31, 2021	484,725,000
2020 2021 January Program Contract 2	January 1, 2020 December 31, 2021	32,975,000
2020 2021 January Program Contract 3	January 1, 2020 December 31, 2021	50,000,000
2020 2021 January Program Contract 5	January 1, 2020 December 31, 2021	90,000,000
2020 2022 January Program Contract 2	January 1, 2020 March 31, 2022	100,000,000
2020 2022 January Program Contract 3	January 1, 2020 March 31, 2022	120,000,000
2020 2022 January Program Contract 4	January 1, 2020 March 31, 2022	80,000,000
2019 2020 January Program Contract 1	January 1, 2019 December 31, 2020	278,800,000
2019 2020 January Program Contract 2	January 1, 2019 December 31, 2020	37,550,000
2019 2020 January Program Contract 3	January 1, 2019 December 31, 2020	125,000,000
2019 2020 January Program Contract 4	January 1, 2019 December 31, 2020	300,000,000
2019 2020 April Program Contract 1	April 1, 2019 March 31, 2020	822,823,400
2017 2020 August Program Contract 2	August 1, 2017 July 31, 2020	200,000,000
2019 2022 August Program Contract 2	August 1, 2019 July 31, 2022	267,000,000
2015 2020 August Program Contract 1	August 1, 2015 July 31, 2020	139,000,000
2019 2020 October Program Contract 1	October 1, 2019 September 30, 2020	328,619,280
2019 2020 October Program Contract 2	October 1, 2019 September 30, 2020	130,100,000
2019 2021 October Program Contract 1	October 1, 2019 September 30, 2021	12,999,960
2019 2021 October Program Contract 2	October 1, 2019 September 30, 2021	5,000,000
2019 2020 December Program Contract 1	December 1, 2019 November 30, 2020	60,000,000
2019 2020 December Program Contract 2	December 1, 2019 November 30, 2020	80,000,000
2020 January Program Contract 4	January 1, 2020 December 31, 2020	100,000,000
2020 2021 January Program Contract 4	January 1, 2020 December 31, 2021	100,000,000
2020 2022 January Program Contract 1	January 1, 2020 December 31, 2022	50,000,000
2020 2022 January Program Contract 5	January 1, 2020 December 31, 2022	500,000,000
2018 2020 June Program Contract 1	June 1, 2018 May 31, 2020	69,999,990
2017 2020 August Program Contract 1	August 1, 2017 July 31, 2020	93,750,000
2019 2021 December Program Contract 1	December 1, 2019 November 30, 2021	125,000,000
2019 2021 December Program Contract 2	December 1, 2019 November 30, 2021	50,000,000
2018 2021 August Program Contract 1	August 1, 2018 July 31, 2021	93,750,000
2019 2020 August Program Contract 1	August 1, 2019 July 31, 2020	118,750,000
2019 2022 August Program Contract 1	August 1, 2019 July 31, 2022	93,750,000
2019 2021 July Program Contract 1	July 1, 2019 June 30, 2021	70,000,000
Total Traditional Reinsurance		**6,618,042,630**
Transformer Reinsurance Contracts	**Contract Period**	**Reinsurance Limit**
2017 2020 Transformer Reinsurance Contract 1 Class E	May 16, 2017 May 15, 2020	500,000,000
2017 2020 Transformer Reinsurance Contract 2 Class B	May 16, 2017 May 15, 2020	425,000,000
2017 2020 Transformer Reinsurance Contract 3 Class D	December 1, 2017 November 30, 2020	200,000,000
2017 2020 Transformer Reinsurance Contract 4 Class C	December 1, 2017 November 30, 2020	200,000,000
2018 2021 Transformer Reinsurance Contract 1 Class D	September 14, 2018 September 13, 2021	250,000,000
2019 2022 Transformer Reinsurance Contract 1 Class C	December 1, 2019 November 30, 2022	400,000,000
Total Transformer Reinsurance		**1,975,000,000**
Total Risk-Transfer Program		**$ 8,593,042,630**

CEA CALIFORNIA EARTHQUAKE AUTHORITY™
THE STRENGTH TO REBUILD®

Governing Board Memorandum

11 June 2020

Agenda Item 6: Request for Annual Set-Aside for the CEA Loss Mitigation Fund

Recommended Action: Approve the Annual Set-Aside for the CEA Loss Mitigation Fund

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<u>Background</u>:

California Insurance Code section 10089.37 states, in pertinent part:

> *The board shall set aside in each calendar year an amount equal to 5 percent of investment income accruing on the authority's invested funds, or five million dollars ($5,000,000), whichever is less, if deemed actuarially sound by a consulting actuary employed or hired by the authority, to be maintained as a subaccount in the California Earthquake Authority Fund. The authority shall use those funds to fund the establishment and operation of an earthquake Loss Mitigation Fund.*

The Governing Board last approved set-aside funding for the CEA Loss Mitigation Fund in June 2019. The Board authorized a set-aside amount of $5,000,000.

<u>Analysis</u>:

The CEA Loss Mitigation Fund is established by law to hold the money to be used for CEA mitigation activities' operational and program expenses. The Board, however, must approve the mitigation programs before CEA Loss Mitigation Fund money can be expended on program activities.

The Insurance Code also requires that the set-aside of monies for the CEA Loss Mitigation Fund be reviewed "by a consulting actuary employed or hired by the authority" to determine if it will impair CEA's actuarial soundness. CEA's Chief Risk and Actuarial Officer has reviewed the staff proposal to transfer funds and has determined that the requested transfer will not impair CEA’s actuarial soundness, as stated in *Attachment A*.

CEA staff requests Board authorization and approval to set aside $5,000,000 for the CEA Loss Mitigation Fund, as calculated and shown in *Attachment B*.

Recommendation:

CEA staff recommends the Board authorize a set-aside of $5,000,000 for the CEA Loss Mitigation Fund.

MEMORANDUM

DATE: May 20, 2020

TO: Tom Hanzel, Chief Financial Officer

FROM: Shawna Ackerman, Chief Risk and Actuarial Officer

RE: 2019 Earthquake Loss Mitigation Fund

Pursuant to California Insurance Code §10089.37, the California Earthquake Authority (CEA) shall set aside in each calendar year an amount equal to the lesser of 5% of its annual investment income or $5,000,000 for the Earthquake Loss Mitigation Fund, if deemed actuarially sound. The amount under review for calendar year 2019 is $5,000,000.

The term "actuarially sound" is often applied to rates. When used in this context "actuarially sound" means that the rate covers the expected future costs for the transfer of risk. In this context, the current rate structure considers and provides for a sufficient provision for the mitigation fund.

In the context of the statute for the mitigation fund, the term may also apply to the CEA's solvency. I have reviewed the financial data provided to me including the provision for the mitigation fund. As of December 31, 2019, CEA available capital is $6.048 billion and total claims paying capacity is $17.587 billion. The mitigation funds available to set aside are approximately 0.08% of the CEA's available capital and 0.03% of the CEA's total claims paying capacity. Because the mitigation fund represents a small percentage of the CEA's total claims paying capacity, the absence of the funds for claims paying will not impair the CEA's solvency. Additionally, the mitigation funds can increase the CEA's ability to pay 100% of claims liabilities to the extent that the funds are used to support activities that reduce the CEA's losses in the event of a damaging earthquake. Therefore, I conclude that the mitigation fund amount as proposed is actuarially sound as contemplated in the statute.

California Earthquake Authority
Calculation of Available Set-Aside Amount for Loss Mitigation Fund
For the Years Ended December 31

			A	B	C	(A + B + C)
Year	**Investment Income**	**5% of Investment Income**	**Beginning-of-Year Remaining Funds Available for Set Aside**	**Lesser of 5% of Investment Income or $5 million ****	**Funds Set Aside by the Governing Board**	**End-of-Year Remaining Funds Available for Set Aside**
Balance as of December 31, 2000						**$ -**
2001	$ 44,184,990.04	$ 2,209,249.50	$ -	$ 2,209,249.50	$ (309,275.55)	$ 1,899,973.95
2002	$ 24,782,830.64	$ 1,239,141.53	$ 1,899,973.95	$ 1,239,141.53	$ (2,509,232.25)	$ 629,883.23
2003	$ 25,562,896.69	$ 1,278,144.83	$ 629,883.23	$ 1,278,144.83	$ -	$ 1,908,028.07
2004	$ 35,851,094.85	$ 1,792,554.74	$ 1,908,028.07	$ 1,792,554.74	$ -	$ 3,700,582.81
2005	$ 64,786,415.96	$ 3,239,320.80	$ 3,700,582.81	$ 3,239,320.80	$ (3,700,582.81)	$ 3,239,320.80
2006	$ 118,647,844.32	$ 5,932,392.22	$ 3,239,320.80	$ 5,000,000.00	$ (3,239,320.80)	$ 5,000,000.00
2007	$ 125,616,215.18	$ 6,280,810.76	$ 5,000,000.00	$ 5,000,000.00	$ (5,000,000.00)	$ 5,000,000.00
2008	$ 84,700,308.00	$ 4,235,015.40	$ 5,000,000.00	$ 4,235,015.40	$ (5,000,000.00)	$ 4,235,015.40
2009	$ 55,449,955.00	$ 2,772,497.75	$ 4,235,015.40	$ 2,772,497.75	$ (4,235,015.40)	$ 2,772,497.75
2010	$ 40,385,063.00	$ 2,019,253.15	$ 2,772,497.75	$ 2,019,253.15	$ (2,772,497.75)	$ 2,019,253.15
2011	$ 31,693,442.00	$ 1,584,672.10	$ 2,019,253.15	$ 1,584,672.10	$ (2,019,253.15)	$ 1,584,672.10
2012	$ 24,766,000.00	$ 1,238,300.00	$ 1,584,672.10	$ 1,238,300.00	$ (1,584,672.10)	$ 1,238,300.00
2013	$ 21,291,499.16	$ 1,064,574.96	$ 1,238,300.00	$ 1,064,574.96	$ (1,238,300.00)	$ 1,064,574.96
2014	$ 25,375,330.26	$ 1,268,766.51	$ 1,064,574.96	$ 1,268,766.51	$ (1,064,574.96)	$ 1,268,766.51
2015	$ 42,808,825.00	$ 2,140,441.25	$ 1,268,766.51	$ 2,140,441.25	$ -	$ 3,409,207.76 *
2016	$ 110,719,225.00	$ 5,535,961.25	$ 3,409,207.76	$ 5,000,000.00	$ (3,409,207.76)	$ 5,000,000.00
2017	$ 81,770,000.00	$ 4,088,500.00	$ 5,000,000.00	$ 4,088,500.00	$ (5,000,000.00)	$ 4,088,500.00
2018	$ 105,539,322.00	$ 5,276,966.10	$ 4,088,500.00	$ 5,000,000.00	$ (4,088,500.00)	$ 5,000,000.00
2019	$ 125,681,687.00	$ 6,284,084.35	$ 5,000,000.00	$ 5,000,000.00	$ (5,000,000.00)	$ 5,000,000.00
Balance as of December 31, 2019						**$ 5,000,000.00**

***Note: The 2014 set-aside amount $1,268,766.51 was transferred March 2016.**

**By law, "(t)he board shall set aside in each calendar year an amount equal to 5 percent of investment income accruing on the authority's invested funds, or five million dollars ($5,000,000), whichever is less…" *Insurance Code section 10089.37.*

Governing Board Memorandum

11 June 2020

Agenda Item 7:	Revised CEA Guidelines for Securing Risk-Transfer: *Traditional Reinsurance and Alternative Risk Transfer*
Recommended Action:	Approve revised CEA Guidelines for Securing Risk-Transfer: *Traditional Reinsurance and Alternative Risk Transfer*

Background:

The Governing-Board-approved *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (the *Guidelines*) provide standards under which CEA determines whether a reinsurer would be eligible to participate in the CEA's reinsurance program, and if so, what maximum (dollar amount) line of reinsurance CEA might accept from that reinsurer.

The *Guidelines* expressly provide that they should be modified periodically to respond to changing reinsurance-market conditions and reinsurance products, to encompass other financial tools from other segments of the financial community, and to adjust to economic changes. Accordingly, the *Guidelines* have been modified repeatedly over the years since they were first established in 1999. The most recent revisions to the *Guidelines* were adopted by the Governing Board more than three years ago, at its March 15, 2017 meeting.

CEA staff believes that the *Guidelines* should now again be modified to account for changes and updates in the reinsurance and other risk-transfer markets, and to update and streamline CEA risk-transfer practices and procedures in light of current market conditions and experience and knowledge gained over recent years.

Analysis:

1. History of CEA's Risk Transfer Guidelines

Historically, CEA has relied on reinsurance and related risk transfer—predominantly, traditional reinsurance—for a substantial component of its total claim-paying capacity. Currently, such risk transfer is the largest dollar-amount component of CEA's claim-paying capacity. The cost of CEA's risk-transfer purchases (both traditional and alternative risk transfer) that are required to meet CEA's capacity needs is, and has been for years, by far CEA's largest recurring expense, and thus can exert upward pressure on premium rates for CEA policyholders.

Available capacity and price are subject to swings due to market conditions, economic trends and conditions, global catastrophes, and other factors beyond CEA's control. Multi-year reinsurance contracts 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 CEA requires in the future will be available at pricing acceptable to CEA and on CEA's desired terms.

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

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 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 CEA's participation and unique requirements.

The Board has recognized these needs in previous actions. For example, on December 13, 2012, the Board authorized CEA staff to accomplish its risk transfer objectives in a flexible, yet prudent, manner, while in full compliance with the *Guidelines* and under documented conditions. On December 14, 2014, the Board authorized CEA staff to put into effect a revision to the *Guidelines*' rating tables, to more accurately reflect rating-systems comparisons among Moody's, A.M. Best, and Standard and Poor's, and on March 17, 2015, the Board authorized CEA staff to put into effect a revision to the *Guidelines*' formulas for Lloyd's of London to use the formulas used by CEA's traditional reinsurers.

2. Proposed Revisions to the Guidelines

This section outlines the proposed revisions to the *Guidelines* and the reasons for those revisions.

a. Risk Transfer Advisory Committee

The proposed modifications to the *Guidelines* expand internal oversight by restructuring the current Alternative Risk Transfer Subgroup into a broader Risk Transfer Advisory Committee ("RTA Committee"):

a. This includes the addition of CEA's Chief Risk and Actuarial Officer and other staff members, supplemented as necessary by outside experts.
b. Beyond approving alternative risk transfer transactions, the RTA Committee will participate in formulating, overseeing, and approving risk transfer strategies.
c. The RTA Committee will operate through a consensus and will convene at least quarterly.

b. Minimum Surplus Requirement

Staff recommends streamlining the formula to calculate the maximum line allocation that CEA uses to scale a reinsurer's CEA participation level to its ratings and policyholder surplus (PHS). Primary changes include the elimination of the table related to reinsurers with a PHS between $150 million and $300 million, along with an increase in the minimum surplus requirements from the previous minimum of $150 million to a new minimum of $250 million.

c. Maximum Line Allocation

The revised *Guidelines* will direct the RTA Committee to use its discretion in determining the appropriate rating to use for calculating the maximum line allocation for any given reinsurer.

d. Expatriate Companies

The revised *Guidelines* remove the limitation on conducting business with expatriate companies.

The restriction from purchasing reinsurance from expatriate companies was written into the *Guidelines* in 2002. At the time, a number of U.S. corporations were relocating to offshore tax havens, and the expatriate language was added in an attempt to create a disincentive for future expatriation by domestic reinsurers. However, in 2017, the Base Erosion and Anti-Abuse Tax (BEAT), a new tax under the Tax Cuts and Jobs Act, was passed. This new tax effectively renders affiliated offshore quota share agreements uneconomic, effectively closing this loophole and eliminating the need for any policy-based disincentives in the *Guidelines*.

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

Recommendation:

CEA staff recommends the Board approve the revised *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer*, as 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
Revised/Approved by the CEA Governing Board on March 15, 2017
Revised/Approved by the CEA Governing Board on June 11, 2020

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INTRODUCTION

These *Guidelines for Securing Risk Transfer: Traditional Reinsurance and Alternative Risk Transfer* (referred to as the "Guidelines") are intended to identify and set out the best practices of the California Earthquake Authority ("CEA") for accessing and purchasing risk transfer products—not only traditional reinsurance market but also alternative risk transfer markets (including risk transfer products funded by the sale of catastrophe bonds, collateralized reinsurance issued by institutional investors that are not traditional reinsurers, and other related products). The Guidelines, originally focused primarily on traditional reinsurance markets and at that time entitled the *Guidelines for Sources of Claim-Paying Capacity: Providers and Products*, were first issued by the CEA in 1999, and have been modified and updated periodically to reflect, among other things, changes in traditional risk transfer markets and industry best practices, as well as the development and evolution of alternative risk transfer markets. Since 1999, the Guidelines have described how the CEA evaluates reinsurers and reinsurance products and have provided minimum standards that traditional reinsurance providers should meet to qualify as suitable for the CEA; subsequently, the Guidelines were expanded to establish best practices for accessing alternative risk transfer markets.

By adopting these Guidelines, the CEA's Governing Board recognizes the evolution of risk transfer markets since the original Guidelines were issued in 1999 and reaffirms its commitment to stable and efficient risk transfer, whether in the traditional or alternative markets. These Guidelines may be further updated or modified 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 in response to as business, economic, market, legal, and regulatory developments.

As used in these Guidelines, the terms "reinsurance" or "reinsurer" may sometimes refer to aspects of the broader risk transfer market (including alternative or nontraditional risk transfer markets or providers) rather than strictly to traditional reinsurance. References that are intended to apply solely to traditional reinsurance or traditional reinsurers will use those specific terms.

I. PRINCIPAL GOALS

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

1. *Financial Strength:* To minimize the risk to the CEA that a provider might fail to pay reinsurance claims, or might delay timely payment, as a result of that 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 reasonably-foreseeable 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 than competing sources.

II. GENERAL STRATEGY

A. GOVERNING BOARD APPROVAL OF RISK TRANSFER STRATEGY

Given the CEA's large (and often increasing) risk transfer needs, the CEA recognizes that it must be in a position to gain the broadest reasonably-obtainable access to the entire global risk transfer market in order to meet its capacity needs, including, among other possible sources, 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 CEA's Risk Transfer Advisory Committee (described below), 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 identifying potential capacity constraints and anticipated exposures to be transferred to the risk transfer markets.

B. RISK TRANSFER ADVISORY COMMITTEE

The CEA will establish a Risk Transfer Advisory Committee (hereinafter referred to as the "RTA Committee"), which will have primary responsibility for formulating, overseeing, and approving the CEA's risk transfer strategies and, as appropriate, any specific risk transfer transaction that materially vary in nature or structure from previous CEA risk transfer transactions.

The RTA Committee will be composed of a group of between three and seven CEA officers and staff members, which may consist of, among others, the CEO, the CFO, the General Counsel, the Chief Risk and Actuarial Officer, and other CEA staff or officers (supplemented, as necessary, by outside experts) deemed appropriate by the RTA Committee to oversee the development and approval the CEA's risk transfer strategies. The RTA Committee will operate through the consensus of its members. Formal meetings of the RTA Committee and approval of matters before the RTA Committee through formal voting procedures will not be required.

The RTA Committee should ensure that all CEA staff involved in risk transfer transactions periodically receive appropriate training regarding the legal and regulatory framework applicable to CEA risk transfer transactions, including traditional reinsurance transactions and insurance-linked securities and other forms of alternative risk transfer transactions.

The RTA Committee will convene on at least a quarterly basis to review, consider, advise the CEA on, and make any necessary modifications to:

- The CEA's general risk transfer needs, and its general plan for fulfilling those needs for the following quarter;
- The general plan for risk transfer purchases and transactions for the following quarter; and
- The CEA's structural standards, practices, and procedures for securing risk transfer.

In addition to convening on a quarterly basis, the RTA Committee will convene periodically, as needed, to evaluate any risk transfer transaction that the CEA may consider entering into for which the structure, terms, or nature of the transaction varies significantly and materially from existing or past CEA risk transfer transactions (such a transaction will be referred to herein as a "Nonstandard Transaction"). The CEA will not enter into any Nonstandard Transaction unless the RTA Committee approves of the CEA entering into that Nonstandard Transaction in advance of its inception. In considering whether to approve a Nonstandard Transaction, the RTA Committee must determine that the Nonstandard Transaction satisfies all of the following criteria:

- The transaction is economically reasonable for the CEA in light of then-existing market conditions;
- The transaction furthers the CEA's claim-paying capacity without subjecting the CEA to unreasonable exposure to market, legal or regulatory risk; and
- The transaction does not pose any undue risk of harm to the CEA's stature or reputation.

In considering whether to approve a Nonstandard Transaction, the RTA Committee may consult independent third party advisors, such as the CEA's reinsurance intermediaries and independent financial advisor, to analyze and discuss with the RTA Committee the benefits, risks and opportunities of any proposed Nonstandard Transaction. CEA staff should appropriately document discussions and decisions related to these topics.

III. Traditional Reinsurance

The following section of the Guidelines will apply to all providers of *traditional* reinsurance and all *traditional* reinsurance contracts to which the CEA is a party.

A. *Stability*

Unlike a private insurance company, the CEA cannot go without claim-paying capacity if reinsurance market capacity diminishes or the market demand for reinsurance capacity exceeds the available supply—recoveries from sources of external risk-transfer capacity are a direct, key source of the CEA's financial ability to pay its policyholders' claims. If reinsurance capacity becomes unavailable to the CEA, the CEA's claim-paying capacity will shrink and the CEA's financial soundness 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 reinsurance only from providers that can endure all foreseeable market conditions.

To most effectively accomplish this goal, the CEA will take into account the following considerations:

1. When cost-effective and advantageous under the existing economic and market environment, the CEA will seek to enter into an appropriate percentage of its reinsurance commitments on multi-year terms.

2. The CEA will take steps to ensure that future markets into which CEA risk can be transferred will continue to be available and accessible.

3. To the extent practical and feasible, the CEA prefers to transact directly with entities that are the primary bearers of the ultimate risk (the "primary risk bearers"). The CEA will identify, and appropriately treat, primary and secondary market capacity, under the following terms:

a. 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, all other considerations being equal, is generally deemed by the CEA to be 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 contracting 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.

b. 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 specific retrocession of CEA risk, the full amount of the line of reinsurance at risk should be applied against the maximum permitted line of *both* the direct reinsurer and each retrocessionaire, as described in the next section of these Guidelines.

c. The CEA relies on input from reinsurance intermediaries and independent financial consultants to help the 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. Given the size of the CEA's risk transfer program, the CEA prefers to have a broad panel of reinsurance counterparties and will avoid situations in which it would use only a few entities or markets to provide all its reinsurance and claim-paying capacity. Similarly, an inordinately large allocation to any one reinsurer could disadvantage the CEA. (The CEA may, at its sole discretion, moderate this guideline in response to compelling and appropriate circumstances.)

B. *FINANCIAL STRENGTH*

A reinsurer's financial strength and its ability to fulfill its promise of claim-paying obligations are the primary considerations in determining whether that 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 functional 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 not satisfied at any point during the term of a reinsurance contract.

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.

1. ***General Requirements***

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

- A policyholders' surplus (PHS) of at least $250 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 will use the following criteria to allocate lines of reinsurance to reinsurers:

- 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. The rating agencies also assess management qualifications and take into account a reinsurer's exposure to natural disasters. It is therefore appropriate that the rating that A.M. Best, S&P, or Moody's assigns a reinsurer should influence the size of that reinsurer's participation in CEA reinsurance contracts.

- "Economic mass" — a company's policyholders' surplus ("PHS") — 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 (including exposures to reinstated, reset, or secondary limits, if any) of greater than 10% of that reinsurer's PHS.

2. ***Lloyd's Syndicates***

The financial statements of syndicates at Lloyd's do not state a policyholders' surplus; therefore, unlike with non-Lloyd's reinsurers, a PHS cannot be used as an allocation criterion for Lloyd's. The CEA must instead use a "PHS equivalent" in lieu of using a PHS.

a. The CEA will use one or more of the following, as specified below in this section, as PHS 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."

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

i. If the syndicate has disclosed to the CEA both its Syndicate Level Assets <u>and</u> 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 PHS equivalent.

ii. 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 PHS equivalent.

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

3. ***<u>Maximum Line Allocation</u>*****:** To properly scale a reinsurer's CEA participation level to its rating and PHS (or PHS equivalent), the following guidelines will be used when allocating lines of reinsurance contracts:

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 listed above, the appropriate rating to use for determining that company's maximum line allocation will be selected at the sole judgment and discretion of the CEA, in consultation with and acting with the approval of the RTA Committee.*

The maximum line allocation is determined as follows: The sum of all the reinsurer's authorized lines on all CEA reinsurance contracts that are or will be in force during reinsurance contract period under consideration will be compared to the maximum permitted line calculated in accordance with table shown above. As used herein, the "reinsurer's authorized lines" that will be used to determine the maximum permitted line for any given period will be deemed to be the aggregate of all lines of CEA risk assumed by that reinsurer that will be in effect during 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.

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 (including of their PHS) 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 could result in diminished financial security for the CEA. To manage this risk, the CEA will use the following procedures to determine the financial status of a non-U.S.-domiciled reinsurer:

- In assigning reinsurance-contract participations, the CEA will calculate the non-U.S.-domiciled reinsurer's PHS based on its domicile's currency 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."
- If during the term of a reinsurance contract a reinsurer's domicile's currency exchange rate falls below the Base Exchange Rate, the CEA will reevaluate compliance with the Guidelines for any reinsurer based in that domicile.

The CEA requires that all its reinsurance contracts with traditional reinsurers grant the CEA the right (but not the obligation) to reduce or terminate the 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

4. *Credit Enhancements*

The CEA, at its sole discretion, may accept certain credit-enhancement tools in support of reinsurance-line allocations for reinsurers (including not only traditional reinsurers, but also non-traditional reinsurers that may wish to participate in the CEA's traditional reinsurance placements) that do not meet the above financial strength criteria and would therefore ordinarily fall outside the financial strength requirements of these Guidelines. This provision, 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:

a. ***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:

   i. Cash, in United States Dollars;

   ii. 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;

iii. 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

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

b. ***<u>Letters of Credit</u>.*** 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:

i. 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.

ii. 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.

iii. 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.

c. ***<u>Parental Guarantees</u>.*** A reinsurer that is affiliated with or a subsidiary of 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:

i. A subsidiary of a strongly-capitalized parent typically enjoys superior liquidity and access to capital.

ii. 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.

iii. For a parent company, including a parent company that is itself an insurer or reinsurer, the amount of reinsurance for which a parental guarantee is provided will be deemed to be part of the authorized line of that parent company as well as of the subsidiary company, and thus will count toward the calculation of the maximum line allocations of both the parent and the subsidiary.

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.

C. *EFFICIENCY*

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

- Work to place cost-effective alternatives to traditional reinsurance;
- Provide reinsurers detailed underwriting information through its intermediaries.

Appropriate use of capital market transactions can supplement traditional reinsurance capacity. This can include the use of alternative transactions such as catastrophe bonds and transformer reinsurance arrangements in which the participants are primarily or exclusively capital markets entities, as well as collateralized re transactions in which capital markets entities participate alongside traditional reinsurers. Certain negative attributes of some secondary capital market products (instability, inflexibility, and lack of claim-paying track record) may be counterbalanced by achieving the desirable attributes of lower cost, encouragement of competition among reinsurers, collateralization of capacity, and diversification of sources of claim-paying capacity.

D. *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.

IV. ALTERNATIVE RISK TRANSFER

This section of the Guidelines applies to transactions that are not reinsurance transactions with traditional reinsurers, but rather, to alternative risk transfer transactions in which the CEA is a party, 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 other similar transactions. These transactions will be referred to in these Guidelines as "Alternative Transactions."

The CEA, at its sole discretion, may develop and use Alternative Transactions, which 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 to 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.

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 RTA Committee 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, including but limited to with traditional reinsurance.

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.

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), certain special terms must be included as part of the transaction, including, but not limited to, the following:

- The aggregate limit of the reinsurance agreement will be fully collateralized, up to the full 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, consistent with those collateral categories stated above in the "Collateralization" requirements of the Traditional Reinsurance section of these Guidelines.

- The CEA will pay negotiated fees and expenses only 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.

- The CEA may agree to indemnify the reinsurer or service providers 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.

OPERATING GUIDELINES

In connection with its procurement of reinsurance funded by the proceeds of a catastrophe bond and similar ILS Transactions, it is recommended that the CEA and its staff comply with the following operating guidelines.

A. **<u>Underwriters</u>**. 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.

B. **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 RTA Committee 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

C. **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.

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
Revised/Approved by the CEA Governing Board on March 15, 2017
Revised/Approved by the CEA Governing Board on June 11, 2020

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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~~") are intended to identify and ~~build upon~~set out the ~~Original Guidelines, seek to establish a more comprehensive approach by recommending~~ best ~~business~~ practices of the California Earthquake Authority ("CEA") for accessing ~~the~~ and purchasing risk transfer products—not only traditional reinsurance market ~~as well as~~but also alternative risk transfer markets~~, such as the alternative~~ (including 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~~related products). The Guidelines, originally focused primarily on traditional reinsurance markets~~.~~ and at that time entitled the *Guidelines for Sources of Claim-Paying Capacity: Providers and Products*, were first issued by the CEA in 1999, and have been modified and updated periodically to reflect, among other things, changes in traditional risk transfer markets and industry best practices, as well as the development and evolution of alternative risk transfer markets. Since 1999, the Guidelines have described how the CEA evaluates reinsurers and reinsurance products and have provided minimum standards that traditional reinsurance providers should meet to qualify as suitable for the CEA; subsequently, the Guidelines were expanded to establish best practices for accessing alternative risk transfer markets.

By adopting these Guidelines, the CEA's Governing Board recognizes the evolution of ~~alternative~~ risk transfer markets since the ~~Original~~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 further updated or modified 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 in response to as business, economic, market, legal, and regulatory developments.

As used in these Guidelines, the terms "reinsurance" or "reinsurer" may sometimes refer to aspects of the broader risk transfer market (including alternative or nontraditional risk transfer markets or providers) rather than strictly to traditional reinsurance. References that are intended to apply solely to traditional reinsurance or traditional reinsurers will use those specific terms.

I. PRINCIPAL GOALS

These Guidelines seek to accomplish four principal goals, presented in order of priority, while mitigating the CEA's potential legal ~~liability~~or financial liabilities 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~~claims, or might delay timely payment, as a result of ~~the~~that 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 reasonably-foreseeable 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 than competing sources.

II. GENERAL STRATEGY

A. ~~The~~GOVERNING BOARD APPROVAL OF RISK TRANSFER STRATEGY

Given the CEA's large (and often increasing) risk transfer needs, the CEA recognizes that it must be in a position to gain the broadest reasonably-obtainable access to the entire global risk transfer market in order to meet its capacity needs, including, among other possible sources, 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,~~CEA's Risk Transfer Advisory Committee (described below), 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 identifying potential capacity constraints and anticipated exposures to be transferred to the risk transfer markets.

B. RISK TRANSFER ADVISORY COMMITTEE

The CEA will establish a Risk Transfer Advisory Committee (hereinafter referred to as the "RTA Committee"), which will have primary responsibility for formulating, overseeing, and approving the CEA's risk transfer strategies and, as appropriate, any specific risk transfer transaction that materially vary in nature or structure from previous CEA risk transfer transactions.

The RTA Committee will be composed of a group of between three and seven CEA officers and staff members, which may consist of, among others, the CEO, the CFO, the General Counsel, the Chief Risk and Actuarial Officer, and other CEA staff or officers (supplemented, as necessary, by outside experts) deemed appropriate by the RTA Committee to oversee the development and approval the CEA's risk transfer strategies. The RTA Committee will operate through the consensus of its members. Formal meetings of the RTA Committee and approval of matters before the RTA Committee through formal voting procedures will not be required.

The RTA Committee should ensure that all CEA staff involved in risk transfer transactions periodically receive appropriate training regarding the legal and regulatory framework applicable to CEA risk transfer transactions, including traditional reinsurance transactions and insurance-linked securities and other forms of alternative risk transfer transactions.

The RTA Committee will convene on at least a quarterly basis to review, consider, advise the CEA on, and make any necessary modifications to:

- The CEA's general risk transfer needs, and its general plan for fulfilling those needs for the following quarter;
- The general plan for risk transfer purchases and transactions for the following quarter; and
- The CEA's structural standards, practices, and procedures for securing risk transfer.

In addition to convening on a quarterly basis, the RTA Committee will convene periodically, as needed, to evaluate any risk transfer transaction that the CEA may consider entering into for which the structure, terms, or nature of the transaction varies significantly and materially from existing or past CEA risk transfer transactions (such a transaction will be referred to herein as a "Nonstandard Transaction"). The CEA will not enter into any Nonstandard Transaction unless the RTA Committee approves of the CEA entering into that Nonstandard Transaction in advance of its inception. In considering whether to approve a Nonstandard Transaction, the RTA Committee must determine that the Nonstandard Transaction satisfies all of the following criteria:

- The transaction is economically reasonable for the CEA in light of then-existing market conditions;
- The transaction furthers the CEA's claim-paying capacity without subjecting the CEA to unreasonable exposure to market, legal or regulatory risk; and
- The transaction does not pose any undue risk of harm to the CEA's stature or reputation.

In considering whether to approve a Nonstandard Transaction, the RTA Committee may consult independent third party advisors, such as the CEA's reinsurance intermediaries and independent financial advisor, to analyze and discuss with the RTA Committee the benefits, risks and opportunities of any proposed Nonstandard Transaction. CEA staff should appropriately document discussions and decisions related to these topics.

III. TRADITIONAL REINSURANCE

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

A. *STABILITY ~~OF RISK TRANSFER PROGRAM~~*

Unlike a private insurance company, the CEA cannot go without claim-paying capacity if reinsurance market capacity diminishes or the market demand for reinsurance capacity exceeds the available supply—recoveries from sources of external risk-transfer capacity are a direct, key source of the CEA's financial ability to pay its policyholders' claims. If ~~risk capital (~~reinsurance capacity~~)~~ becomes unavailable to the CEA, the CEA's claim-paying capacity will shrink and ~~it~~the CEA's financial soundness 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 reinsurance only from providers that can endure all foreseeable market conditions.

To most effectively accomplish this goal, the CEA will ~~consistently consider~~take into account the following ~~steps~~considerations:

~~1. Enter into multi-year agreements when~~

1. When cost-effective and advantageous under the existing economic and market environment, the CEA will seek to enter into an appropriate percentage of its reinsurance commitments on multi-year terms.

2. ~~Take~~The CEA will take steps to ensure that future markets ~~are available to~~into which CEA risk can be transferred will continue to be available and accessible.

3. To the extent practical and feasible, the CEA prefers to transact directly with entities that are the primary bearers of the ultimate risk (the "primary risk bearers"). The CEA will identify, and appropriately treat, primary and secondary market capacity, under the following terms:

~~4. Distinguish clearly between primary and secondary market capacity.~~

a. 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, all other considerations being equal, is ~~therefore~~ generally deemed by the CEA to be 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~~contracting 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.

b. 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 specific retrocession of CEA risk, ~~such~~the full amount of the line of reinsurance at risk should be applied against the maximum permitted line of *both* the direct reinsurer and each retrocessionaire, as described in the next section of these Guidelines.

c. The CEA ~~has relied~~relies on input from reinsurance intermediaries and independent financial consultants to help the 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~~Given the size of the CEA's risk transfer program, the CEA ~~cannot depend entirely on~~prefers to have a broad panel of reinsurance counterparties and will avoid situations in which it would use only a few entities or markets to provide all its reinsurance and claim-paying capacity. ~~An~~Similarly, an inordinately large allocation to any one reinsurer could disadvantage the CEA. (The CEA may, at its sole discretion ~~may,~~ moderate this guideline in response to compelling and appropriate circumstances~~.~~.)

B. *Financial Strength ~~of Reinsurer~~*

~~The~~A reinsurer's financial strength and its ability to fulfill its promise of claim-paying obligations are the primary considerations in determining whether ~~a~~that 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 functional 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~~not satisfied at any point during the term of a reinsurance contract.

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.

1. ***General ~~Criteria~~Requirements***

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

- ~~Policyholders'~~A policyholders' surplus (PHS) of at least $~~150~~250 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~~will use the following criteria to allocate lines of reinsurance to reinsurers:

- 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~~The rating agencies also assess management qualifications and take into account a reinsurer's exposure to natural disasters. It is therefore appropriate that the rating that A.M. Best, S&P, or Moody's assigns a reinsurer should influence the size of that reinsurer's participation in CEA reinsurance contracts.

- "Economic mass" — a company's policyholders' surplus ("PHS") — 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, reset, or secondary limits, if any) of greater than 10% of that reinsurer's PHS.

2. *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~~a PHS cannot be used as an allocation criterion for Lloyd's. The CEA must instead use a "~~policyholders' surplus~~PHS equivalent" in lieu of using ~~policyholders' surplus.~~ a PHS.

a. The CEA will use one or more of the following, as specified below in this ~~paragraph~~section, as ~~policyholders' surplus~~PHS 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."

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

i. 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~~PHS equivalent.

ii. 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~~PHS equivalent.

iii. 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~~PHS equivalent.

3. *Maximum Line Allocation*: To properly scale a reinsurer's CEA participation level to its rating and PHS~~,~~ (or PHS equivalent), 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~~listed above, the ~~lowest~~appropriate rating to use for determining that company's maximum line allocation will be selected at the sole judgment and discretion of the ~~ratings will apply~~CEA, in ~~apply these guidelines~~consultation with and acting with the approval of the RTA Committee.*

The maximum line allocation is ~~calculated~~determined 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~~in force during reinsurance contract period ~~is compared to~~under consideration will be compared to the maximum permitted line calculated in accordance with table shown above. As used herein, the ~~maximum permitted line from Table 1 or Table 2. The~~ "reinsurer's authorized lines" that will be ~~compared~~used to determine the maximum permitted line for any given period will be deemed to be the aggregate of all lines of CEA risk assumed by that reinsurer ~~for~~that will be in effect during 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 (including of their PHS) based on currencies other than U.S. ~~dollars~~Dollars. Exchange rates fluctuate daily, and an exchange rate moving downward in relation to the U.S. ~~dollar means~~Dollar could result in diminished financial security for the CEA. To manage this risk, the CEA will ~~employ~~use the following ~~procedure~~procedures to determine the financial status of a non-U.S.-domiciled reinsurer:

- In assigning reinsurance-contract participations, the CEA will calculate ~~a~~the non-U.S.-domiciled reinsurer's PHS based on its domicile's currency 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."

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

The CEA requires that all its reinsurance contracts with traditional reinsurers grant the CEA the right (but not the obligation) to reduce or terminate the 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

4. ***Credit ~~Enhancement~~Enhancements***

The CEA, at its sole discretion, may accept certain credit-enhancement tools in support of reinsurance-line allocations for reinsurers~~,~~ (including not only traditional reinsurers ~~participating~~, but also non-traditional reinsurers that may wish to participate in ~~Alternative Transactions,~~the CEA's traditional reinsurance placements) that do not meet the above financial strength criteria and would therefore ordinarily fall outside the financial strength requirements of these Guidelines. This ~~guideline~~provision, 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.~~ a. ***Collateralization.*** The CEA may allow ~~Reinsurers~~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:

i. Cash, in United States Dollars;

ii. 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;

iii. 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

iv. 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),~~CEA acting with the approval of the RTA Committee and with, as needed 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~~i) through (~~c~~iii) immediately above.

~~2.~~ b. ***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:

i. 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.

~~ii.~~ 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.

ii.

iii. 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.~~ c. ***Parental Guarantees.*** A reinsurer that ~~has exceptionally strong capitalization, or a company that~~ is affiliated with or a subsidiary of 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:

i. A subsidiary of a ~~quality~~strongly-capitalized parent typically enjoys superior liquidity and access to capital.

ii. 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.

iii. For a parent company, including a parent company that is itself an insurer or reinsurer, the amount of reinsurance for which a parental guarantee is provided will be deemed to be part of the authorized line of that parent company as well as of the subsidiary company, and thus will count toward the calculation of the maximum line allocations of both the parent and the subsidiary.

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.

~~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."unable to secure the desired or necessary reinsurance capacity without contracting with that 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.~~

C. *EFFICIENCY*

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

- Work to place cost-effective alternatives to traditional reinsurance;
- Provide reinsurers detailed underwriting information through its intermediaries.

Appropriate use of ~~secondary~~ capital market transactions can supplement traditional reinsurance capacity. This can include the use of alternative transactions such as catastrophe bonds and transformer reinsurance arrangements in which the participants are primarily or exclusively capital markets entities, as well as collateralized re transactions in which capital markets entities participate alongside traditional reinsurers. Certain negative attributes of some secondary capital market products (instability, inflexibility, and lack of claim-paying track record) may be ~~overcome~~counterbalanced by achieving the desirable attributes of lower cost, encouragement of competition among reinsurers, collateralization of capacity, and diversification of sources of claim-paying capacity.

D. *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.

IV. ALTERNATIVE RISK TRANSFER

~~The~~ This section of the Guidelines ~~in this section apply~~applies to ~~all~~transactions that are not reinsurance transactions with traditional reinsurers, but rather, to 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 other similar transactions. These transactions will be referred to in these Guidelines as "Alternative Transactions."

The CEA, at its sole discretion, may ~~enable the development of~~develop and ~~utilize~~use Alternative Transactions, ~~that~~which 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~~to 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~~RTA Committee 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, including but limited to with traditional reinsurance.

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.~~certain special terms must be included as part of the transaction, including, but not limited to, the following:

~~**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.~~

- The aggregate limit of the reinsurance agreement will be fully collateralized, up to the full 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:~~consistent with those collateral categories stated above in the "Collateralization" requirements of the Traditional Reinsurance section of these Guidelines.

~~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.~~

~~2. The CEA will be obligated under the reinsurance agreement to make periodic reinsurance premium payments to the reinsurer on a quarterly basis.~~

~~3. 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.~~

~~4. 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.~~

~~5. 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.~~

- The CEA will pay negotiated fees and expenses only 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~~CEA may agree to indemnify the reinsurer or service providers 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.

OPERATING GUIDELINES

In connection with its procurement of reinsurance funded by the proceeds of a catastrophe bond and similar ILS Transactions, it is recommended that the CEA and its staff comply with the following operating guidelines.

A. **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:

~~or other~~• The lead underwriter has been in business for at least five years and has a satisfactory reputation in connection with insurance-linked securities ~~issued by a special purpose reinsurer (referred to as an ILS Transaction).~~offerings and the broader capital markets;

~~*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.~~

- 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.

Offering Materials

~~A.~~**B.** . 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~~RTA Committee 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

~~B.~~**C.** . 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~~

~~**C.**~~**A.** ~~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

11 June 2020

Agenda Item 8:	Annual Report on the state of the economy by Raymond James & Associates, Inc., CEA's independent financial advisor
Recommended Action:	No action required—information only.

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

Governing Board Memorandum

11 June 2020

Agenda Item 9: Audit Report on CEA Annual Financial Statements (2019)

Recommended Action: No action required—information only

Background:

Plante Moran, PLLC, CEA's independent auditor, has performed an audit of CEA's financial statements for the year ended December 31, 2019. Plante Moran conducted an audit of CEA's financial statements prepared in accordance with generally accepted accounting principles (GAAP) in the United States of America.

The audit report for the GAAP financial statements are found in *Attachment A* and consist of:

- Independent Auditor's Report
- Management's Discussion and Analysis (MD&A)
- Audited Financial Statements and accompanying notes
    - Starting in fiscal year 2019, the financial statements include the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position, which report the net position restricted (segregated) for the California Wildfire Fund (CWF) and the increase in net position for the year.
    - The net position of the CWF is not reflected as part of the CEA net position because the CWF resources are not available to pay CEA earthquake insurance liabilities.
- Supplementary Information

Analysis:

According to the Independent Auditor's Report, CEA's 2019 audited GAAP financial statements present fairly, in all material respects, the financial position of CEA, in conformity with accounting principles generally accepted in the United States of America.

CALIFORNIA EARTHQUAKE AUTHORITY

Financial Statements
December 31, 2019 and 2018

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plante moran

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Independent Auditor's Report

To the Governing Board
California Earthquake Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the enterprise fund and fiduciary fund of the California Earthquake Authority (CEA) as of and for the years ended December 31, 2019 and 2018 and the related notes to the financial statements, which collectively comprise the CEA's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these basic financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these basic financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the basic financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the financial position of the enterprise fund and fiduciary fund of the California Earthquake Authority as of December 31, 2019 and 2018 and the changes in its financial position and its cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1 to the basic financial statements, in 2019, the CEA adopted Governmental Accounting Standards Board Statement No. 84, *Fiduciary Activities*. Our opinion is not modified with respect to this matter.

To the Governing Board
California Earthquake Authority

Other Matters

Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of the CEA's proportionate share of the net pension liability, and the schedule of the CEA's contributions: pension plan, as identified in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplemental information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the California Earthquake Authority's basic financial statements. The accompanying schedules of participating insurer capital contributions, participating insurer premiums written, participating insurer unearned premiums, participating insurer commissions, and participating insurer operating costs are presented for the purpose of additional analysis and are not a required part of the basic financial statements.

The schedules of participating insurer capital contributions, participating insurer premiums written, participating insurer unearned premiums, participating insurer commissions, and participating insurer operating costs are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedules of participating insurer capital contributions, participating insurer premiums written, participating insurer unearned premiums, participating insurer commissions, and participating insurer operating costs are fairly stated in all material respects in relation to the basic financial statements as a whole.

Plante & Moran, PLLC

June 2, 2020

History and Financing

This discussion provides an assessment by management of the financial position, revenues, expenses, changes in net position, cash flows and liquidity of the California Earthquake Authority (CEA). Readers are encouraged to consider the information presented in conjunction with the financial statements as a whole, which follow Management's Discussion and Analysis.

Following the unprecedented losses from the 1994 Northridge earthquake, many insurance companies either stopped or severely restricted selling new homeowners' insurance policies in California. The insurer response was largely due to state law that requires insurers to offer earthquake insurance when selling or renewing residential property insurance.

In September 1996, legislation to create the CEA was approved by the California State Legislature. On November 26, 1996, the State of California Insurance Commissioner certified that all statutory conditions necessary for the CEA to become operational had been met, and the CEA began writing earthquake policies on December 1, 1996. The CEA is overseen by a three-member Governing Board consisting of the Governor, the Treasurer, and the Insurance Commissioner or their designees. The Speaker of the Assembly and the Chairperson of the Senate Rules Committee or their designees serve on the Governing Board as nonvoting members. The Governing Board establishes premium rates, subject to the prior approval of the Insurance Commissioner. The Governing Board is advised by an 11-member advisory panel, consisting of members of the public, consumers and insurance industry representatives.

The CEA uses its available capital (net position) to leverage approximately $17.6 billion in claims-paying capacity at December 31, 2019. The CEA's claims-paying capacity is determined from the CEA's available capital, risk-transfer coverage, debt, and post-event prospective participating insurance company assessments. The CEA derives its capital from participating insurer capital contributions and from increases in net position generated from the sale of earthquake insurance policies. The CEA is exempt from federal income tax and from state insurance-premium tax. California Insurance Code section 10089.44 provides, in pertinent part, that *"... premiums collected by the authority shall be exempt from collection of the state's insurance premium tax, and the amount of tax foregone by the state shall be considered for all purposes a contribution by the state and its citizens to the capital and operating revenues of the authority."*

The CEA had 1,111,665 policyholders at December 31, 2019, most of whom insure single-family dwellings through the CEA. The CEA offers a basic residential earthquake policy to homeowners, which includes coverage for the insured dwelling and limited coverage for contents and loss-of-use if the residence is uninhabitable due to an earthquake. The CEA also offers policies to condominium unit owners and renters. For an additional premium, CEA policyholders can significantly increase insured limits on contents and for loss-of-use. The CEA policy deductible ranges from 5 percent to 25 percent, which is determined by the homeowner, and will affect the premium amount paid.

The CEA employs contract employees, employees subject to civil-service provisions, and an extensive network of contract vendors to perform functions on behalf of the CEA. The CEA is continuing to transition to more employees subject to civil service provisions to handle these functions, which over time will reduce the number of contract vendors necessary to handle these internal functions.

Using the Report

While the CEA is an instrumentality of the state, the State of California's General Fund is not liable for CEA claims, losses, or other liabilities. However, the CEA meets the definition of a governmental organization, as defined by accounting principles generally accepted in the United States of America. The CEA's financial statements for the years ended December 31, 2019 and 2018 have been prepared using accounting standards applicable to governmental entities. This financial report consists of five financial statements with accompanying notes. The balance sheets, prepared on the accrual basis of accounting, include all assets, liabilities and net position of the CEA. The statements of revenues, expenses, and changes in net position, also prepared on the accrual basis, consider all revenues and expenses for the CEA regardless of when cash is received or paid. The statements of cash flows reflect the actual cash receipts and disbursements for a specified period. Statements of Fiduciary Net Position and Changes in Fiduciary Net Position report the net position restricted for the California Wildfire Fund (CWF) and the increase in net position for the year. The net position of the CWF is not reflected as part of the CEA net position because the CWF resources are not available to support CEA operations nor are CEA resources available to support CWF operations. Required information concerning the CWF can be found in Note 13.

Condensed Balance Sheets

The CEA's assets, deferred outflows, liabilities, deferred inflows and net position as of December 31 are summarized as follows:

	2019	2018	2017
Assets			
Current			
Cash and investments	$ 7,017,586,206	$ 6,610,077,544	$ 6,317,362,817
Premiums receivable, net	73,539,876	69,456,437	64,475,336
Prepaid reinsurance premium	20,840,283	19,854,113	17,291,299
Securities receivable	-	-	98,223,089
Other current assets	33,321,064	34,651,019	27,925,371
Total current assets	7,145,287,429	6,734,039,113	6,525,277,912
Noncurrent			
Capital assets	152,485	208,044	269,494
Total assets	7,145,439,914	6,734,247,157	6,525,547,406
Deferred Outflows of Resources	3,170,535	4,462,640	-
Total assets and deferred outflows of resources	7,148,610,448	6,738,709,797	6,525,547,406

Condensed Balance Sheets (Continued)

	2019	2018	2017
Liabilities			
Current			
Unearned premiums	423,593,078	417,448,201	373,456,016
Revenue bonds payable, currrent portion	-	105,000,000	105,000,000
Other current liabilities	22,652,987	12,623,686	47,627,416
Total current liabilities	446,246,065	535,071,887	526,083,432
Noncurrent			
Revenue bonds payable, noncurrrent portion	-	-	105,000,000
Other noncurrent liabilities	11,067,316	12,745,149	485,589
Total liabilities	457,313,381	547,817,036	631,569,021
Deferred Inflows of Resources	386,030	103,316	-
Total liabilities and deferred inflows of resources	457,699,411	547,920,352	631,569,021
Net Position			
Net investment in capital assets	152,485	208,044	269,494
Restricted, expendable	13,315,861	327,622,508	225,507,185
Unrestricted	6,677,442,691	5,862,958,893	5,668,201,706
Total net position	6,690,911,037	6,190,789,445	5,893,978,385
Total liabilities, deferred inflows of resources, and net position	$ 7,148,610,448	$ 6,738,709,797	$ 6,525,547,406

Assets

Total assets grew $411.2 million (6.1%) in 2019. The increase was primarily due to cash and investments, which grew $407.5 million (6.2%). The remaining increase is associated with premiums receivable of $4.1 million (5.9%).

In 2018, total assets grew $208.7 million (3.2%). The increase was primarily due to cash and investments, which grew $292.7 million (4.6%). This was offset by a decrease in the securities receivable, as it had a balance of zero compared to $98.2 million in 2017.

Deferred Outflows of Resources/Deferred Inflows of Resources

Deferred outflows of resources had a decrease of $1.3 million (29.0%) in 2019, and in increase in 2018 of $4.5 million (first year). Deferred inflows of resources increased by $282,714 (273.6%) and $103,316 (first year) in 2019 and 2018, respectively. These balances are associated with the recording of the CEA's proportionate share of net pension liability as reported to the CEA by the State Controller in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68. See Note 9 in the financial statements for further discussion of these balances.

Condensed Balance Sheets (Continued)

Liabilities

Total liabilities decreased $90.5 million (16.5%) in 2019, driven by a decrease of $105.0 million (100.0%) in revenue bonds payable. See Note 3 in the notes to financial statements for further discussion of the bonds.

This decrease was offset by an increase in various other liability accounts, primarily unearned premiums, accounts payable, and loss and loss expense reserves. The liability with the largest percentage increase in 2019, was loss and loss expense reserves, which increased by $3.7 million (3214.1%) associated with the July 2019 earthquake event near Ridgecrest, California.

Total liabilities decreased $83.8 million (13.3%) in 2018. A decrease of $105.0 million (50.0%) in revenue bonds payable was due to debt repayments. The securities payable also had a balance of zero compared to $32.7 million in 2017.

These decreases were offset by an increase in unearned premiums of $44.0 million (11.8%) and other noncurrent liabilities of $12.2 million (2524.7%). The increase in unearned premiums was driven by the increase in written premiums in 2018. The increase in other noncurrent liabilities relates to the increase in the CEA's proportionate share of net pension liability during December 31, 2018. See Note 9 in the financial statements for further discussion of the pension liability.

Net Position

The CEA classifies its net position into three components, invested in capital assets, net of related debt; restricted-expendable, and unrestricted. Invested in capital assets, net of related debt consists of equipment and leasehold improvements, and there is no debt related to the purchase of these assets. Restricted net position includes the net position of the Earthquake Loss Mitigation Fund (Mitigation Fund), unspent bond proceeds restricted for payment of claims as defined in the debt agreements offset by underlying debt, funds held for debt service by the revenue bond trustee, and investment income earned on the bond proceeds restricted as pledged revenue for debt service.

The Mitigation Fund was created by statute and related funds must be used solely for the establishment and operation of earthquake loss mitigation programs. The remaining net position of the CEA is classified as unrestricted. The CEA's net position grew $500.1 million (8.1%) and $296.8 million (5.0%) in 2019 and 2018, respectively.

The 2019 increase was primarily comprised of the underwriting profit of $238.0 million, premium tax contributions from the State of California of $19.2 million, and net investment income of $248.7 million. The 2018 increase was primarily comprised of the underwriting profit of $182.1 million, premium tax contributions from the State of California of $18.3 million, and net investment income of $92.7 million.

Condensed Statements of Revenue, Expenses, and Changes in Net Position

The CEA's operating and nonoperating results are presented in the following table:

	2019		2018		2017
Underwriting income:					
Premiums written	$ 816,640,879		$ 778,340,984		$ 706,550,318
Less premiums ceded - reinsurance	(373,457,574)		(366,630,729)		(315,744,745)
Net premiums written	443,183,305	54.3%	411,710,255	52.9%	390,805,573
Change in net unearned premiums	(6,144,877)		(43,992,185)		(55,990,652)
Net premiums earned	437,038,428	53.5%	367,718,070	47.2%	334,814,921
Expenses:					
Loss and loss adjustment expenses	4,875,685		148,833		(84,914)
Other underwriting expenses	194,155,788		185,518,102		152,767,591
Total expenses	199,031,473	24.4%	185,666,935	23.9%	152,682,677
Underwriting profit	238,006,955	29.1%	182,051,135	23.4%	182,132,244
Non-operating income and expenses:					
Net investment income	248,719,233		92,745,186		38,062,720
Other non-operating income	20,426,997		18,774,366		20,319,770
Other non-operating expenses	(7,031,593)		(10,031,627)		(13,431,199)
Total non-operating income and expenses	262,114,637	32.1%	101,487,925	13.0%	44,951,291
Capital contributions	-		13,272,000		-
Increase in net position	500,121,592	61.2%	296,811,060	38.1%	227,083,535
Net position, beginning of year	6,190,789,445		5,893,978,385		5,666,894,850
Net position, end of year	$ 6,690,911,037		$ 6,190,789,445		$ 5,893,978,385

The increase in net position was $500.1 million in 2019, which resulted in a net profit margin of 61.2%, and was a $203.3 million (68.5%) increase compared to 2018. The increase in 2019 compared to 2018 was driven by net investment income increasing $156.0 million (168.2%) and net premiums earned increasing by $69.3 million (18.9%).

The investment income increase was driven by a positive change in unrealized gains/losses of $133.3 million and a $20.0 million increase in interest income. The net premiums earned increase was primarily driven by an increase in premiums written of $38.3 million and an increase in the change in unearned premiums of $37.8 million.

The increase in net position was $296.8 million in 2018, which resulted in a net profit margin of 38.1%, and was a $69.7 million (30.7%) increase compared to 2017. The increase in 2018 compared to 2017 was driven by net investment income increasing $54.7 million (143.7%) and capital contributions increase of $13.3 million (none in 2017).

Condensed Statements of Revenue, Expenses, and Changes in Net Position (Continued)

The investment income increase was driven by a positive change in unrealized gains/losses of $31.7 million and a $24.4 million increase in interest income. The capital contribution increase was due to a new participating insurer joining the CEA in 2018. The underwriting profit increase was primarily driven by an increase in premiums written of $71.8 million and an increase in the change in unearned premiums of $12.0 million. This was offset by an increase in premiums ceded of $50.9 million due to the increase policy exposure.

Condensed Statements of Cash Flows

Primary sources of cash included cash flows from operations and proceeds from maturities of investments. The primary uses of cash was for operating expenses, repayment of debt, and the purchase of short-term and long-term investment securities.

The cash flows of the CEA are summarized as follows:

	2019	2018	2017
Net cash provided by operating activities	$ 254,637,641	$ 237,095,275	$ 218,810,113
Net cash used in noncapital financing activities	(104,313,814)	(104,756,546)	(103,330,015)
Net cash provided by (used in) capital and related financing activities	7,742,000	5,530,000	(223,584)
Net cash (used in) provided by investing activities	(245,011,486)	(303,410,981)	235,817,328
Net (decrease) increase in cash and cash equivalents	(86,945,659)	(165,542,252)	351,073,842
Cash and cash equivalents, beginning of year	224,271,110	389,813,362	38,739,520
Cash and cash equivalents, end of year	$ 137,325,451	$ 224,271,110	$ 389,813,362

Cash from operating activities increased $17.5 million (7.4%) and increased $18.3 million (8.4%) in 2019 and 2018, respectively. The 2019 increase resulted primarily from an increase in cash received from premiums of $39.2 million, offset by an increase in payments for reinsurance of $12.1 million and an increase in payments for other operating expenses of $8.1 million. The 2018 increase resulted primarily from an increase in cash received from premiums of $87.2 million, offset by an increase in payments for reinsurance of $44.4 million and an increase in payments for other operating expenses of $19.3 million.

For the remaining cash flow activities, the biggest change from 2019 compared to 2018 was cash used in investing activities. Cash used in investing activities decreased by $58.4 in 2019 compared to 2018. This is mostly driven by timing as most investments are held until maturity. Purchase of investments decreased by $210.4 million in 2019, and proceeds from maturities decreased by $132.1 million, in addition to a decrease in investment income receipts of $19.7 million.

For 2018 compared to 2017, the biggest change in the remaining cash flow activities was a $5.8 million increase in capital and related financing activities and a decrease of $539.2 million in cash provided by investing activities. The $5.8 million increase for financing activities was primarily due to contributed capital payments of a new participating insurer of $5.5 million. The $539.2 million decrease in investing activities is driven by the net effect of proceeds of the maturities of investments compared to the purchases of investments.

Liquidity

The CEA maintains a liquid investment portfolio in order to be able to pay claims in the event of a large earthquake. As of December 31, 2019, 12.2% of the portfolio was scheduled to mature in 90 days or less, securities maturing between 91 days and one year accounted for 24.4% of the portfolio, while securities maturing between one to five years accounted for the remaining 63.4% of the portfolio, with a total portfolio modified duration of approximately 1.8 years. Based on earthquake modelers' results of analyzing the CEA's portfolio, management believes the CEA has sufficient liquidity to meet its obligations as they become due resulting from an earthquake or series of earthquakes. The CEA pays policyholder claims from its claims-paying capacity.

The following depicts the CEA's claims-paying capacity in effect as of December 31, 2019, in millions of dollars:

CEA capital available for claims	$	6,048
Risk transfer financial products		8,161
Revenue bonds		722
Policyholders Surcharge		1,000
Post-earthquake industry assessments (2nd Layer)		1,656
Total	$	17,587

Capital Assets and Debt Activity

Capital Assets

The CEA's investment in capital assets as of December 31, 2019 was $152,485 (net of accumulated depreciation). No major capital asset purchases were made in the current year.

Debt Administration

At December 31, 2019, the CEA had short-term debt obligations of $164,497 and long-term debt obligations of $926,503 associated with Senate Bill 84 loan payable. Additional information on the CEA's long-term debt can be found in Note 3 in the Notes to the Financial Statements.

Current Economic Factors and Conditions

The California economy showed improvement in 2019. The unemployment rate in California went from 4.1% at the end of December 31, 2018 to 3.9% at the end of December 31, 2019. The job gains in 2019 contributed to a record job expansion in California of 118 months, surpassing the long expansion of the 1960s. The CEA continues to experience year over year growth in policy counts. As of December 31, 2019, CEA policyholders increased 5.8% from December 31, 2018, and the CEA continues to market and educate consumers about earthquake insurance. The growth in 2019 was most likely a result of increased awareness of earthquake risk and recent catastrophic events in North America, including the July 2019 earthquake near Ridgecrest, California and major natural disasters elsewhere in the world; along with the improved California economy.

Current Economic Factors and Conditions (Continued)

The large-scale COVID-19 pandemic, that started in early 2020, is slowing the US economic activity as millions practice social distancing to stem the spread of the virus. As a result, companies and individuals are either currently experiencing or anticipating significant constraints on cash and working capital, including potential liquidity challenges. As of March 31, 2020, CEA's policyholders increased .24% from December 31, 2019. Cash flow scrutiny will be crucial in the days and months ahead, as will the speed at which the $2 trillion US economic stabilization package that passed on March 27, 2020 starts to flow through the economy. We will continue to monitor our liquidity needs and ability to access capital markets. Operationally, our financial reporting systems, internal control over financial reporting and disclosure controls and procedures continue to operate effectively despite a remote workforce. Management will continue to monitor the ongoing situation.

Requests for Information

This financial report is designed to provide a general overview of the CEA's finances for all those interested. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to California Earthquake Authority, 801 K Street, Suite 1000, Sacramento, CA 95814.

CALIFORNIA EARTHQUAKE AUTHORITY

Balance Sheets
As of December 31, 2019 and 2018

	2019	2018
Assets and Deferred Outflows of Resources		
Current assets:		
Cash and investments:		
Cash and cash equivalents	$ 128,649,686	$ 157,085,080
Restricted cash and equivalents	8,675,765	67,186,030
Restricted investments	-	360,913,199
Investments	6,880,260,755	6,024,893,235
Total cash and investments	7,017,586,206	6,610,077,544
Premiums receivable, net of allowance for doubtful accounts of $ 6,156,102 and $ 5,346,462	73,539,876	69,456,437
Capital contributions receivable	-	7,742,000
Interest receivable	27,711,837	25,314,888
Prepaid reinsurance premium	20,840,283	19,854,113
Prepaid transformer maintenance premium	3,783,920	1,268,123
Other current assets	1,825,307	326,008
Total current assets	7,145,287,429	6,734,039,113
Noncurrent assets:		
Capital assets, net	152,485	208,044
Total assets	7,145,439,914	6,734,247,157
Deferred Outflows of Resources		
Related to pensions	3,170,535	4,462,640
Total assets and deferred outflows of resources	$ 7,148,610,448	$ 6,738,709,797

See accompanying notes to financial statements

CALIFORNIA EARTHQUAKE AUTHORITY

Balance Sheets
As of December 31, 2019 and 2018 (Continued)

	2019	2018
Liabilities and Deferred Inflows of Resources		
Current liabilities:		
Unearned premiums	$ 423,593,078	$ 417,448,201
Accounts payable and accrued expenses	15,006,680	10,420,749
Loss and loss expense reserves	3,815,000	115,114
Compensated absences - current portion	546,259	450,701
Securities payable	3,120,551	-
SB 84 loan payable - current portion	164,497	164,497
Revenue bond payable - current portion	-	105,000,000
Revenue bond interest payable	-	1,472,625
Total current liabilities	446,246,065	535,071,887
Noncurrent liabilities:		
SB 84 loan payable	926,503	926,503
Net pension liability	9,621,334	11,070,484
Compensated absences	519,479	748,162
Total liabilities	457,313,381	547,817,036
Deferred Inflows of Resources		
Related to pensions	386,030	103,316
Total liabilities and deferred inflows of resources	457,699,411	547,920,352
Net Position		
Net investment in capital assets	152,485	208,044
Restricted, expendable	13,315,861	327,622,508
Unrestricted	6,677,442,691	5,862,958,893
Total net position	6,690,911,037	6,190,789,445
Total liabilities and deferred inflows of resources, and net position	$ 7,148,610,448	$ 6,738,709,797

CALIFORNIA EARTHQUAKE AUTHORITY

Statements of Revenues, Expenses, and Changes in Net Position
For the Years Ended December 31, 2019 and 2018

	2019	2018
Underwriting income:		
Premiums written	$ 816,640,879	$ 778,340,984
Less premiums ceded - reinsurance	(373,457,574)	(366,630,729)
Net premiums written	443,183,305	411,710,255
Change in unearned premiums	(6,144,877)	(43,992,185)
Net premiums earned	437,038,428	367,718,070
Operating expenses:		
Loss and loss adjustment expenses	4,875,685	148,833
Participating insurer commissions	81,673,616	77,838,382
Participating insurer operating costs	26,346,131	25,280,833
Reinsurance broker commissions	2,800,000	2,800,000
Premium taxes	19,202,293	18,301,952
Other underwriting expenses	64,133,748	61,296,935
Total operating expenses	199,031,473	185,666,935
Underwriting profit	238,006,955	182,051,135
Non-operating income and expenses:		
Net investment income	248,719,233	92,745,186
Other income	478,489	468,364
Grant revenue	746,215	4,050
Grant expenses	(746,215)	(18,626)
Investment income on bond proceeds, net of related expenses	1,680,322	1,262,291
Mitigation Fund expenses	(1,665,700)	(2,375,292)
California Residential Mitigation Program contribution	(6,300,000)	(8,900,000)
State of California premium tax contribution	19,202,293	18,301,952
Total of non-operating income and expenses	262,114,637	101,487,925
Contributed capital	-	13,272,000
Increase in net position	500,121,592	296,811,060
Net position, beginning of year	6,190,789,445	5,893,978,385
Net position, end of year	$ 6,690,911,037	$ 6,190,789,445

See accompanying notes to financial statements

CALIFORNIA EARTHQUAKE AUTHORITY

Statements of Cash Flows
For the Years Ended December 31, 2019 and 2018

	2019	2018
Cash flows from operating activities:		
Cash received from premiums	$ 812,557,440	$ 773,359,883
Cash payments for premiums ceded - reinsurance	(376,959,541)	(364,821,815)
Cash payments for operating expenses	(152,319,873)	(144,150,355)
Cash payments to employees for services	(28,640,385)	(27,292,438)
Net cash provided by operating activities	254,637,641	237,095,275
Cash flows from noncapital financing activities:		
Repayment of revenue bonds	(105,000,000)	(105,000,000)
Interest paid on revenue bonds	(3,035,513)	(6,148,039)
Interest income on revenue bonds proceeds	3,243,210	5,937,705
Grant revenue	746,215	4,050
Grant expense	(746,215)	(18,626)
Other income	478,489	468,364
Net cash used by noncapital financing activities	(104,313,814)	(104,756,546)
Cash flows from capital and related financing activities:		
Contributed capital receipts	7,742,000	5,530,000
Net cash provided by capital and related financing activities	7,742,000	5,530,000
Cash flows from investing activities:		
Proceeds from maturities of investments	1,717,474,394	1,849,553,785
Purchases of investments	(2,078,195,740)	(2,288,599,749)
Investment income	118,526,106	138,296,797
Investment expense	(2,816,246)	(2,661,814)
Net cash used in investing activities	(245,011,486)	(303,410,981)
Net decrease in cash and cash equivalents	(86,945,659)	(165,542,252)
Cash and cash equivalents, beginning of year	224,271,110	389,813,362
Cash and cash equivalents, end of year	$ 137,325,451	$ 224,271,110
Reconciliation to balance sheet:		
Cash and cash equivalents	$ 128,649,686	$ 157,085,080
Restricted cash and equivalents	8,675,765	67,186,030
Cash and cash equivalents, end of year	$ 137,325,451	$ 224,271,110

See accompanying notes to financial statements

CALIFORNIA EARTHQUAKE AUTHORITY

Statement of Cash Flows (Continued)
For the Years Ended December 31, 2019 and 2018

	2019	2018
Reconciliation of operating income to net cash provided by operating activities:		
Underwriting profit	$ 238,006,955	$ 182,051,135
Adjustments to reconcile underwriting profit to net cash provided by operating activities:		
Depreciation on equipment	55,560	61,451
Premium tax expense	19,202,293	18,301,952
Contribution to California Residential Mitigation Program	(6,300,000)	(8,900,000)
Mitigation Fund expenses	(1,665,700)	(2,375,292)
Net periodic pension expense	125,669	7,802,160
Changes in operating assets and liabilities:		
Premiums receivable	(4,083,439)	(4,981,101)
Unearned premiums	6,144,877	43,992,185
Other assets	(1,499,299)	39,082
Prepaid reinsurance premium	(986,170)	(2,562,814)
Prepaid transformer maintenance premium	(2,515,797)	4,371,728
Claim and claim expense reserves	3,699,886	20,140
Accounts payable and accrued expenses	4,585,931	(942,005)
Compensated absences payable	(133,125)	216,654
Net cash provided by operating activities	$ 254,637,641	$ 237,095,275

Non-cash Investing, Capital and Financing Activities

The change in the fair value of investments, which is included as a component of net investment income in the Statements of Revenues, Expenses and Changes in Net Position, was an increase of $127.9 million in 2019, and a decrease of $5.4 million in 2018. Premium tax contributed by the State of California and recognized as a component of expense in the Statements of Revenues, Expenses and Changes in Net Position was $19.2 million and $18.3 million in 2019 and 2018, respectively.

CALIFORNIA EARTHQUAKE AUTHORITY

Statement of Fiduciary Net Position – Fiduciary Funds of California Wildfire Fund
As of December 31, 2019

	Custodial Funds
Assets	
Cash and investments:	
Cash and cash equivalents	$ 170,912,277
Investments	4,599,954,544
Total assets	$ 4,770,866,821
Liabilities and Net Position	
Liabilities:	
Securities payable	$ 447,511
Net position:	
Restricted for CWF	4,770,419,310
Total liabilities and net position	$ 4,770,866,821

See accompanying notes to financial statements

CALIFORNIA EARTHQUAKE AUTHORITY

Statement of Changes in Fiduciary Net Position – Fiduciary Funds of California Wildfire Fund
For the Period from Inception of July 12, 2019 to December 31, 2019

	Custodial Funds
Additions:	
Deposits from CWF	$ 4,789,829,741
Deductions:	
Withdrawals by CWF	19,410,431
Increase in net position	4,770,419,310
Net position, at inception	-
Net position, end of year	$ 4,770,419,310

1. Reporting Entity and Summary of Significant Accounting Policies

Reporting Entity

The California Earthquake Authority (CEA) is a privately financed, publicly managed authority that provides insurance coverage for earthquake damage to residential property owners, condominium owners, mobile homeowners, and renters in the state of California. In September 1996, legislation to create the CEA was approved by the California State Legislature. On November 26, 1996, the State of California Insurance Commissioner certified that all statutory conditions necessary for the CEA to become operational had been met, and the CEA began writing earthquake policies on December 1, 1996. The CEA is overseen by a three-member Governing Board consisting of the Governor, the Treasurer, and the Insurance Commissioner or their designees. The Speaker of the Assembly and the Chairperson of the Senate Rules Committee or their designees serve on the Governing Board as nonvoting members. The Governing Board is advised by an 11-member advisory panel, consisting of members of the public, consumers and insurance industry representatives.

CEA policies are sold to policyholders by participating insurers of the CEA. Insurance companies admitted to write residential property insurance in California and who elect to become participating members of the CEA sign Insurer Participation Agreements with the Insurance Commissioner and the CEA. Under these agreements, participating insurers act as independent contractor agents on behalf of the CEA by performing policy and claims services which include policy issuance, premium collection, and claims adjustment. Under the agreements, the CEA reimburses participating insurers for non-claims related costs incurred by these companies in servicing CEA policies. The operating cost reimbursement was 3.25% throughout 2018 and changed to 3.21% on July 1, 2019 as a result of the most recent form filing approved by the Department of Insurance. The producer commission is equal to 10% of written premium of all new and renewal CEA policies. Additionally, participating insurers receive reimbursement for expenses associated with servicing CEA claims equal to 9% of paid claims. As of December 31, 2019, there are 24 participating insurers of which 19 insurers are writing CEA policies. Four participating insurers account for 69% of CEA’s written premiums.

The CEA has eligibility requirements that compel the CEA to issue and renew policies if the insured structure has no pre-existing, non-cosmetic earthquake damage and the policyholder has a companion policy of residential property insurance from a participating insurer.

In the event that a natural disaster program is enacted by Congress, the Advisory Panel is required to prepare a plan to dissolve the CEA or to conform the sections of the California Insurance Code regarding the CEA to the federal program and recommend an action plan to the CEA Governing Board and the California State Legislature.

Basis of Accounting

While the CEA is an instrumentality of the state, the State of California's General Fund is not liable for CEA claims, losses, or other liabilities. However, the CEA meets the definition of a governmental organization, as defined by accounting principles generally accepted in the United States of America.

1. Reporting Entity and Summary of Significant Accounting Policies (Continued)

The CEA is accounted for as an enterprise fund and is financed and operated in a manner similar to that of a private business enterprise. The CEA uses the economic resources measurement focus and the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America. Under this method, revenues are recorded when earned and expenses are recorded when incurred. In preparing the financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the balance sheet and revenue and expenses for the period, as well as the disclosure of contingent assets and liabilities. Actual results could differ from those estimates applied in the preparation of the accompanying financial statements.

The Custodial Fund accounts for the activities of the California Wildfire Fund (CWF). As a separate fiduciary fund, classified as a custodial fund for the asset holdings of the CWF, the custodial fund reports net position restricted for payment or reimbursement of eligible claims from a covered wildfire by a utility company which participates in the CWF. As a result, the funds are not available to support CEA operations. The reporting focus of the custodial fund is on net position and changes in net position and employs accounting principles similar to the CEA, as described above. As further described in Note 13, the financial statements of the custodial fund are reported using the economic resources measurement focus and the accrual basis of accounting.

Operating revenues are those revenues that are generated from providing earthquake insurance policies. All other revenues are reported as non-operating revenues. Operating expenses are those costs related to providing those earthquake insurance policies. All other expenses are reported as non-operating expenses.

Revenue Recognition

Premiums are recognized as earned on a pro rata basis over the policy contract period. All premium rates charged by the CEA must be approved by the State of California Insurance Commissioner before use. Unearned premiums represent amounts written which relate to coverage in future periods.

Premiums paid or accrued by the CEA under reinsurance agreements are accounted for as a reduction in the related premium revenue earned and amortized over the remaining reinsurance contract period. Prepaid insurance premiums are the pro rata portion of premiums ceded applicable to the unexpired period of reinsurance coverage.

Use of Restricted/Unrestricted Net Position

When an expense is incurred for purposes for which both restricted and unrestricted net position is available, the CEA’s policy is to apply unrestricted net position before applying any restricted net position available.

CEA’s policy could change if California experiences a major earthquake event.

Cash and Cash Equivalents

For purposes of the statement of cash flows, the CEA considers investments in certificates of deposit, U.S. treasuries, commercial paper, corporate bonds, and bankers' acceptances with original maturities of three months or less, to be cash equivalents. Restricted cash and cash equivalents are comprised of unspent bond proceeds, debt service sinking funds and monies transferred to the Earthquake Loss Mitigation Fund (Mitigation Fund).

1. Reporting Entity and Summary of Significant Accounting Policies (Continued)

Investments

Investments consist primarily of certificates of deposit, U.S. treasuries, U.S. agencies, and commercial paper, as authorized by California Insurance Code (Code) section 10089.6. All investments are reported at fair value in the balance sheets. Fair value is the amount at which a financial instrument could be exchanged in a current transaction between willing parties, and is determined from published data provided by the exchanges, computerized pricing sources, securities custodians, and other authoritative sources. The CEA is permitted to invest in securities eligible in California Government Code section 16430. Restricted investments are comprised of unspent bond proceeds and monies transferred to the Mitigation Fund. The CEA intends to hold the majority of investments to maturity.

Capital Assets

Capital assets are stated at historical cost. The capitalization threshold for assets with a useful life beyond one year is $5,000. Depreciation is computed using the straight-line method over the useful lives as follows:

Leasehold improvements	Shorter of useful life or remaining lease term
Computer equipment and software	3 years
Furniture and other equipment	5 years
Capital leases	Shorter of useful life or remaining lease term

Risk-Capital Surcharge

Under California Insurance Code sec. 10089.16(d), effective July 1, 2008, the CEA Governing Board must calculate a risk-capital surcharge one year after the date that a new participating insurer first places or renews business into the CEA. The law provides that each annual risk-capital surcharge must equal the CEA's increased cost of providing or securing capacity to insure the new participant's excess earthquake- insurance risk. Amica Mutual Insurance Company (Amica) joined the CEA and started transferring earthquake exposure to the CEA in August 2018 and has thus now completed the transfer of its residential earthquake insurance exposure to the CEA.

CEA staff analyzed Amica’s earthquake insurance risk profile as of December 31, 2019, and determined that the addition of Amica’s business was more likely to produce losses for the CEA, or as likely to produce greater losses for the CEA, than would a book of existing CEA business of similar size. Therefore, the Governing Board required Amica to pay a first annual risk-capital surcharge in the amount of $112,000.

Policy Acquisition Costs

Acquisition costs, consisting of participating insurer commissions and operating costs, vary with and are primarily related to the issuance of new and renewal insurance policies. These costs are expensed as incurred.

1. Reporting Entity and Summary of Significant Accounting Policies (Continued)

Losses and Loss Adjustment Expenses

Reserves for insurance losses and loss adjustment expenses include the accumulation of case estimates for claims reported, claims incurred but not reported, and estimates of expenses for investigating and adjusting all incurred claims. The reserve is established at a level that management estimates to be sufficient to satisfy those claims. Estimates are revised as more information becomes available. Since the CEA's inception, there has not been a major earthquake. The CEA had $3,815,000 and $115,114 in unpaid claims reported as of December 31, 2019 and 2018, respectively.

If the CEA's Governing Board determines that the CEA's net position, bond proceeds, additional participating insurer capital contributions and reinsurance proceeds are exhausted and that no source of additional funds is available to the CEA to pay policyholder claims, the Governing Board is required to develop a plan for approval by the State of California Insurance Commissioner to pay policyholder claims on a pro rata or installment basis. In such circumstances, the insurance code states that the commissioner shall order the CEA to cease renewing or accepting new earthquake insurance policies.

Participating Insurer Capital Contributions

Each insurer that elected to participate in the CEA during its first year of operations was required to contribute, as its share of the CEA's initial operating capital, an amount equal to $1,000,000,000 multiplied by the percentage representing that insurer's residential earthquake insurance market share as of January 1, 1994. Insurers that elect to participate in the CEA after December 1, 1996, are required to make an initial capital contribution calculated using their residential earthquake insurance market share as of January 1, 1994, or the latest date for which such market share information is available to the CEA, whichever contribution amount is greater. As of December 31, 2019, participating insurer capital contributions totaled $791 million and were 100% funded.

Participating Insurer Assessments

The California Insurance Code (Code) states that, subject to certain maximum limits as set forth in the Code, the CEA has the power to make additional assessments of participating insurers in the event of a major California earthquake, subject to the approval of the State of California Insurance Commissioner.

As of December 31, 2018, participating insurers have a cumulative residential property insurance market share of approximately 75.5% of the total residential property insurance market in California based on written premium. The market share as of December 31, 2019 was unavailable as of the date the financial statements were issued.

If participating insurers withdraw their participation in the CEA such that the cumulative residential property insurance market share is less than 65%, the Insurance Commissioner is required by law to make recommendations to the California Legislature for the continuation or termination of the CEA.

1. Reporting Entity and Summary of Significant Accounting Policies (Continued)

Net Position

The CEA classifies its net position into three components, net position invested in capital assets, net of related debt; restricted-expendable and unrestricted net position. There is no debt related to capital assets, so the balance of net position invested in capital assets consists only of the capital assets balance. Restricted net position includes the net position of the Mitigation Fund, unspent bond proceeds restricted for payment of claims as defined in the debt agreements and funds held for debt service by the revenue bond trustee offset by underlying debt, and investment income earned on the bond proceeds restricted as pledged revenue for debt service.

Income Taxes

In a private letter ruling dated November 8, 1996, the Internal Revenue Service determined the CEA to be an integral part of the State of California for federal income tax purposes. As such, the CEA is exempt from federal income tax.

State of California Premium Tax

California Insurance Code section 10089.44 provides that "*Notwithstanding any other provision of law, premiums collected by the Authority shall be exempt from collection of the state's insurance premium tax, and the amount of tax foregone by the state shall be considered for all purposes a contribution by the state and its citizens to the capital and operating revenues of the authority.*" As a result, CEA is exempt from remitting state premium tax. Premium tax contributions from the State of California were $19,202,293 and $18,301,952 for the years ended December 31, 2019 and 2018, respectively, which offset the related operating expenses.

Compensated Absences

Employees accrue vacation, holiday and sick leave benefits. However, unused sick leave is not included in compensated absences because they do not vest to employees. CEA contract employees are paid at the time of termination from CEA employment. CEA civil-service employees are paid at the time of termination only for employees that have left civil service employment. CEA civil-service employees that retain employment within civil service are removed as a liability for CEA, without a payout, as CEA is no longer responsible for the vested balance of these employees.

Pension Liability

All CEA civil-service employees participate in the California Public Employees' Retirement System (CalPERS), which is included in the State of California's Comprehensive Annual Financial Report as a fiduciary component unit. The portion of the present value of projected benefit payments to be provided to civil-service employees attributable to past periods of service less CEA's fiduciary net position is recorded as a liability. The CEA is using the measurement date as of June 30, 2018, which is the most recent information available.

1. Reporting Entity and Summary of Significant Accounting Policies (Continued)

Deferred Outflows and Inflows of Resources

In addition to assets and liabilities, the Balance Sheets will sometimes report a separate section for deferred outflows and inflows of resources. Deferred outflows of resources represent a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense) until a future period. Deferred inflows of resources represent an acquisition of net position that will be recognized as an inflow of resources (revenue) in a future period. Deferred outflows and inflows of resources as of December 31, 2019 related to pension results from the actuarially determined liability and pension contributions made after the measurement date.

Upcoming Accounting Pronouncements

In June 2017, the GASB issued GASB Statement No. 87, *Leases*. This Statement will increase the usefulness of governments' financial statements by requiring reporting of certain lease asset and liabilities that currently are not reported. It will enhance comparability of financial statements among governments by requiring lessees and lessors to report leases under a single model. This Statement also will enhance the decision-usefulness of the information provided to financial statement users by requiring notes to financial statements related to the timing, significance, and purpose of a government's leasing arrangements. GASB Statement No. 87 is required to be adopted for years beginning after December 15, 2019 (June 15, 2021 after extension with GASB Statement No. 95). The CEA does not expect this standard to have a significant impact on the financial statements.

In April 2018, the GASB issued GASB Statement No. 88, *Certain disclosures related to debt, including direct borrowing and direct placements*. The requirements of this Statement will improve financial reporting by providing users of financial statements with essential information that currently is not consistently provided. In addition, information about resources to liquidate debt and the risks associated with changes in terms associated with debt will be disclosed. As a result, users will have better information to understand the effects of debt on a government's future resource flows. GASB Statement No. 88 is required to be adopted for years beginning after June 15, 2018 (June 15, 2019 after extension with GASB Statement No. 95). The CEA has determined that the impact would be enhanced footnote disclosures within the financial statements. New short-term debt was issued in 2020, which may require these additional disclosures, and will be evaluated by management for proper reporting disclosures as part of the preparation of the financial statements ending December 31, 2020.

Adopted Accounting Pronouncement

In January 2017, the GASB issued GASB Statement No. 84, *Fiduciary Activities*. This Statement establishes standards of accounting and financial reporting for fiduciary activities. The requirements of this Statement apply to the financial statements of all state and local governments. This Statement will enhance the consistency and comparability of fiduciary activity reporting by governments. This Statement is intended to improve the usefulness of fiduciary activity information primarily for assessing the accountability of governments in their roles as fiduciaries. As a result, this Statement will enhance consistency and comparability by establishing specific criteria for identifying activities that should be reported as fiduciary activities and clarifying whether and how business-type activities should report their fiduciary activities. GASB Statement 84 is required to be adopted for years beginning after December 15, 2018 (December 15, 2019 after extension with GASB Statement No. 95). The CEA was named the interim administrator of the California Wildfire Fund (CWF) in July 2019, see Note 13.

1. Reporting Entity and Summary of Significant Accounting Policies (Continued)

Management determined that early adoption of GASB 84 during fiscal year 2019 was necessary to fully disclose the CWF activity and present a statement of fiduciary net position and a statement of changes in fiduciary net position.

2. Cash and Investments

As of December 31, 2019 and 2018, the CEA had the following cash and investments:

December 31, 2019

	Investment Maturities (in Years)					
	Less Than 1	1-2	2-3	3-4	4-5	Total
U. S. Treasuries	$2,445,611,003	$1,438,164,392	$1,313,134,515	$1,036,455,402	$ 657,870,479	$ 6,891,235,791
U. S. Agencies	68,818,185	-	-	-	-	68,818,185
Commercial Paper	48,826,810	-	-	-	-	48,826,810
Cash	8,705,420	-	-	-	-	8,705,420
Total	$2,571,961,418	$1,438,164,392	$1,313,134,515	$1,036,455,402	$657,870,479	$ 7,017,586,206

December 31, 2018

	Investment Maturities (in Years)					
	Less Than 1	1-2	2-3	3-4	4-5	Total
U. S. Treasuries	$1,033,542,131	$1,774,746,453	$1,401,712,564	$1,244,727,646	$ 929,153,462	$ 6,383,882,256
U. S. Agencies	134,426,745	-	-	-	-	134,426,745
Commercial Paper	30,701,596	-	-	-	-	30,701,596
Cash	61,066,947	-	-	-	-	61,066,947
Total	$1,259,737,419	$1,774,746,453	$1,401,712,564	$1,244,727,646	$929,153,462	$ 6,610,077,544

The table below identifies the investment types that are authorized for the CEA by the California Government Code or CEA's investment policy, where more restrictive. The table also identifies certain provisions of the CEA's investment policy that address interest rate risk, credit risk, and concentration risk.

Liquidity Fund:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment In One Issuer
U.S. Treasury Securities	180 days	None	None
Federal Agency Securities	180 days	50%	25%
Bankers Acceptances (BA)	180 days	25%	5%
Certificates of Deposit	180 days	25%	5%
Commercial Paper	180 days	25%	5%
Corporate Bonds/Notes	180 days	25%	5%

2. Cash and Investments (Continued)

Primary Reserve Fund:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment In One Issuer
U.S. Treasury Securities	5 years	None	None
Federal Agency Securities	N/A	None	None
Bankers Acceptances (BA)	N/A	None	None
Certificates of Deposit	N/A	None	None
Commercial Paper	N/A	None	None
Corporate Bonds/Notes	N/A	None	None

Mitigation Fund:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment In One Issuer
U.S. Treasury Securities	90 days	None	None
Federal Agency Securities	90 days	50%	25%
Bankers Acceptances (BA)	90 days	25%	5%
Certificates of Deposit	90 days	25%	5%
Commercial Paper	90 days	25%	5%
Corporate Bonds/Notes	90 days	25%	5%

Claims Paying Fund:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment In One Issuer
U.S. Treasury Securities	5 years	None	None
Federal Agency Securities	180 days	50%	25%
Bankers Acceptances (BA)	180 days	25%	5%
Certificates of Deposit	180 days	25%	5%
Commercial Paper	180 days	25%	5%
Corporate Bonds/Notes	180 days	25%	5%

Cash Deposits

With the issuance of the series 2014 revenue bonds, the CEA was required to deposit 1/12th of the annual interest payment by the 15th of each month into a trust account. Starting on July 1, 2015, the CEA also was required to deposit 1/12th of the annual principal payment by the 15th of each month into a trust account. Such amounts were held in restricted cash, cash equivalents and investments as of December 31, 2018. The 2014 revenue bonds were paid off as of December 31, 2019.

2. Cash and Investments (Continued)

Interest Rate Risk

As a means of limiting its exposure to fair value losses resulting from rising interest rates, the CEA's investment policy limits all securities purchased to a maximum maturity duration of 180 days, except for U.S. Treasuries. U.S. Treasuries are allowed to have maturities of up to 5 years as long as the CEA's combined portfolio does not exceed a maximum modified duration of 3 years. As of December 31, 2019, the CEA's combined portfolio had a maximum modified duration of 1.8 years.

Credit Risk

The CEA investment policy limits investments in banker's acceptances and commercial paper to issuers with the highest rating category by all rating agencies that rate the issuer. The policy limits investments in corporate bonds to the top three ratings issued by nationally recognized rating services. As of December 31, 2019, 98% of the portfolio consisted of U.S. Treasuries and 2% of the portfolio consisted of U.S. Agencies, commercial paper and cash.

CEA's cash equivalents and investments are rated as follows:

Security Type	Moody's*	Standard & Poor's*
US Treasury	Aaa	AA+
Federal Home Loan Mortgage Corporation	Aaa	AA+
Fannie Mae	Aaa	AA+
Chevron Corporation	Aa2	AA
Coca Cola	A1	A+
Pfizer Inc.	A1	AA-
Toyota Motor Credit Corporation	A1	AA-
Societe Generale North America	NR	NR
Mitsubishi UFJ Financial Group	A1	A
Credit Agricole Corporation	Aa3	A+

*Although U.S. Treasury is the only security type that can be held long term, the long-term rating is used as the short-term rating equivalent is too broad to show much difference between security type.

Concentration of Credit Risk

There is no concentration of investments in any one non-U.S. Governmental issuer, which is not explicitly guaranteed, that represents 5% or more of total investments.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of failure of a depository financial institution, CEA will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. CEA has no policy that would limit the exposure to custodial credit risk for deposits. At December 31, 2019 and 2018 approximately $9.0 million and $60.8 million, respectively, of CEA deposits were not covered by FDIC insurance.

2. Cash and Investments (Continued)

Investment Income

Total investment income is comprised of interest, realized gains and losses, and unrealized gains and losses due to changes in the fair value of investments held at year end. Investment income earned on unspent bond proceeds are offset against related interest expense and classified as investment income on bond proceeds, net of related expenses on the statements of revenues, expenses, and changes in net position.

Investment income for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
U.S. agency securities	$ 2,231,942	$ 1,651,416
Commercial paper	1,330,213	1,069,967
U.S. treasuries	123,303,259	104,035,916
Interest income	126,865,414	106,757,299
Change in fair value of investments	127,913,166	(5,412,594)
Less investment expenses	(2,816,137)	(2,661,814)
Net investment income	$ 251,962,443	$ 98,682,891

The following is a reconciliation of investment income to the statements of revenues, expenses, and changes in net position:

	2019	2018
Investment income on bond proceeds	$ 3,243,210	5,937,705
Net investment income	248,719,233	92,745,186
	$ 251,962,443	$ 98,682,891

The change in fair value of investments for the years ended December 31, 2019 and 2018 are calculated as follows:

	2019	2018
Fair value of investments at the end of year	$ 6,880,260,755	$ 6,385,806,434
Add: Proceeds of investments matured	1,717,474,394	1,786,063,785
Add: Amortization of discounts/premium	(2,707,564)	5,759,014
Less: Chg in realized gain/loss	9,139	379,558
Less: Cost of investments purchased	(2,081,317,124)	(2,255,871,930)
Less: Fair value of investments at the beginning of year	(6,385,806,434)	(5,927,549,455)
Change in fair value of investments	$ 127,913,166	$ (5,412,594)

2. Cash and Investments (Continued)

Fair Value Measurement

The CEA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is divided into 3 levels with each level based on the source used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The asset's level within the hierarchy is based on the lowest level of input that is significant to the fair value measurement. The CEA's assessment of the significance of particular inputs to these fair value measurements requires judgement and considers factors specific to each asset or liability.

U.S. treasury securities and U.S. agency securities classified in Level 1 are valued using prices quoted in active markets for those securities.

The fair value of commercial paper was determined to be amortized cost due to the short-term duration of the security.

As of December 31, 2019 and 2018, the CEA had the following recurring fair value measurements:

December 31, 2019

	Fair Value Measurement Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Bonds:				
U.S. Treasuries	$ 6,839,180,991	$ -	$ -	$ 6,839,180,991
U.S. Agencies	-	-	-	-
Commercial Paper	-	41,079,764	-	41,079,764
Subtotal	6,839,180,991	41,079,764	-	6,880,260,755
Cash and cash equivalents:				
U.S. Treasuries	52,054,800	-	-	52,054,800
U.S. Agencies	68,818,185	-	-	68,818,185
Commercial Paper	-	7,747,046	-	7,747,046
Cash	8,705,420	-	-	8,705,420
Subtotal	129,578,405	7,747,046	-	137,325,451
Total	$ 6,968,759,396	$ 48,826,810	$ -	$ 7,017,586,206

2. Cash and Investments (Continued)

December 31, 2018

	Fair Value Measurement Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Bonds:				
U.S. Treasuries	$ 6,324,469,706	$ -	$ -	$ 6,324,469,706
U.S. Agencies	49,022,445	-	-	49,022,445
Commercial Paper	-	12,314,283	-	12,314,283
Subtotal	6,373,492,151	12,314,283	-	6,385,806,434
Cash and cash equivalents:				
U.S. Treasuries	59,412,550	-	-	59,412,550
U.S. Agencies	85,404,300	-	-	85,404,300
Commercial Paper	-	18,387,313	-	18,387,313
Cash	61,066,947	-	-	61,066,947
Subtotal	205,883,797	18,387,313	-	224,271,110
Total	$ 6,579,375,948	$ 30,701,596	$ -	$ 6,610,077,544

Fair Value of Other Financial Instruments

The recorded value of other receivables and payables, which are financial instruments, approximates fair value due to the short-term nature of these assets and liabilities.

3. Long-Term Liabilities

The following is a summary of long-term liabilities, excluding the net pension liability (see footnote 9) as of December 31, 2019:

	Balance 1-Jan-19	Additions	Retirements	Balance 31-Dec-19	Due within One Year
Revenue Bonds	$ 105,000,000	$ -	$ (105,000,000)	$ -	$ -
SB 84 Loan	1,091,000	-	-	1,091,000	164,497
Compensated Absences	1,198,863	413,134	(546,259)	1,065,738	546,259
Total	$ 107,289,863	$ 413,134	$ (105,546,259)	$ 2,156,738	$ 710,756

3. Long-Term Liabilities (Continued)

On November 6, 2014 CEA issued Series 2014 revenue bonds totaling $350,000,000, summarized as follows:

Principal Amount	Interest Rate	Price or Yield	Maturity Date
$40,000,000	1.194 %	1.194 %	July 1, 2016
60,000,000	1.824	1.824	July 1, 2017
40,000,000	2.805	2.805	July 1, 2017
105,000,000	2.805	2.805	July 1, 2018
105,000,000	2.805	2.805	July 1, 2019

The bonds will bear interest from their date of delivery at the rates shown above, payable semiannually on January 1 and July 1, commencing on January 1, 2015. The series 2014 bonds are not subject to optional redemption prior to maturity and are payable from future pledged policyholder premiums.

The series 2014 revenue bonds are used to enhance claims paying capacity. The net proceeds from the revenue bonds were deposited into their respective Claims Paying Account and were used to purchase investments according to CEA's investment policy. The proceeds will only be used for future payments of earthquake policyholder claims and related loss adjustment expenses and may not be used to repay principal and interest of the debt. Revenue bond proceeds may be used for payment of claims after the CEA exhausts its capital available for claims and any capacity made available by reinsurance contracts. Repayment of debt does not affect the level of the Claims Paying Account.

The bonds were paid in full on July 1, 2019. Interest paid during the year was $2,945,250 and $5,890,500 for 2019 and 2018, respectively.

SB 84 Loan

Senate Bill 84 (SB 84), authorized a one-time $6 billion supplemental pension payment in 2017-18 to the California Public Employees' Retirement System (CalPERS), in addition to the actuarially determined annual contribution, which is to be apportioned to the five state retirement plans based on their share of the aggregate unfunded liability. The supplemental pension payment was funded through a cash loan from the Surplus Money Investment Fund and other state funds that accrue interest to the General Fund, which will be paid back by June 30, 2030, through the General Fund and other funds responsible for retirement contributions for the state's plans.

The total amount the CEA is responsible for paying is $1,273,000, which includes principal of $1,091,000 and interest of $182,000. The interest rate is valued at the quarter-to-date yield at the two-year constant maturity U.S. Treasury rate and will be payable in July of each year subsequent to 2019.

3. Long-Term Liabilities (Continued)

Annual debt service requirements to maturity for the note payable at December 31, 2019 are as follows:

Year	Principal	Interest	Total
2020	$ 164,497	$ 37,503	$ 202,000
2021	167,835	34,165	202,000
2022	173,948	28,052	202,000
2023	181,111	20,889	202,000
2024	188,429	13,571	202,000
Thereafter	215,180	47,820	263,000
Total requirements	$ 1,091,000	$ 182,000	$ 1,273,000

4. Net Position

As described in Note 1, net position includes restricted and unrestricted portions. The following table details the components of net position as it relates to restricted and unrestricted:

	2019	2018
Restricted:		
Mitigation fund	$ 13,315,861	$ 16,092,656
Claims paying account	-	311,529,852
Total restricted net position	$ 13,315,861	$ 327,622,508
Unrestricted:		
Contributed capital	$ 790,656,796	$ 790,656,796
Additional paid-in capital	293,795,461	274,593,169
Other unrestricted	5,592,990,434	4,797,708,928
Total unrestricted net position	$ 6,677,442,691	$ 5,862,958,893

5. Risk Transfer

CEA cedes risk to reinsurers under catastrophe excess-of-loss reinsurance contracts for purposes of limiting its maximum exposure. All contracts provide coverage for losses as well as allocated loss adjustment expenses. Although the ceding of risk does not discharge CEA from its primary responsibility to its policyholders, the reinsurance company that assumes the coverage assumes responsibility to reimburse CEA for the related liability. Management believes that its reinsurers are and will continue to be able to satisfy their obligations under the reinsurance agreements. To date, losses have been recovered only under the supplemental coverage reinsurance contracts. In the event that legislation is enacted by the State of California that has the effect of increasing a reinsurer's exposure to loss under the reinsurance contract, a reinsurer has the right to cancel the reinsurance contract.

5. Risk Transfer (Continued)

Certain aggregate excess reinsurance contracts allowed for an adjustment of premium, based on the average aggregate insurance in-force and the exposure adjustment limit, as defined in the contracts. As of December 31, 2019, and 2018 in accordance with these terms, CEA did not have a premium adjustment expense against the contracts.

In addition to single year contracts, CEA contracts with reinsurers on multi-year contracts with a single limit over a two, three or a five-year term. The first-year premium for the reinsurance limit is calculated on the full limit, while subsequent premiums would be calculated on the remaining limit, if there were a recoverable from the reinsurance contract. An annual adjustment to the retention is based on the contracted probability of loss.

At the end of 2019, CEA had a total of four multi-year term contracts with the option of two limits available for two events. Similar to other CEA multi-year contracts, the first-year premium for the reinsurance limit is calculated on the full limit, while subsequent year's premium will be calculated on the remaining limit, if there is a recoverable from the reinsurance contract. An annual adjustment to the retention is based on the contracted probability of loss.

As of December 31, 2019, CEA ceded premiums to reinsurers under catastrophe excess-of-loss reinsurance contracts and provided maximum limits of $8.161 billion at varying attachment points, and 30% of the limit balance is fully collateralized.

6. Statutory Compliance

State of California Insurance Code limits the CEA's "operating expenses" to a percentage of its "premium income." In calculating this limitation, the CEA determined that its premium income is its reported premiums written.

Effective January 1, 2015, statutory provisions pertaining to CEA operating expenses were amended by legislation, and items to be excluded from CEA operating expenses were spelled out in the new law, which (in effect) changed certain items of operating-expense inclusion, when compared to past practices of the CEA. The operating-expense cap was moved to 6% as defined in California Insurance Code section 10089.6, subdivisions (c) and (d), as amended by AB 2064. Operating expenses underneath this legislation totaled $35.0 million and $32.1 million for the years ended December 31, 2019 and 2018, respectively, and did not exceed 6% of premiums written in either year.

7. Commitments and Contingencies

The CEA is a defendant in various legal actions arising from the normal course of business. Management does not believe that the ultimate disposition of these actions will have a material adverse effect on CEA's financial position or results of operations.

7. Commitments and Contingencies (Continued)

The CEA leases office facilities and equipment under various non-cancelable operating lease agreements that expire through June 2024. Rental expense associated with the lease agreements was $1,304,342 and $1,175,631 for the years ended December 31, 2019 and 2018, respectively. Future minimum rental payments under these agreements are as follows:

Year	Amount
2020	$ 1,311,602
2021	1,345,921
2022	1,357,013
2023	1,344,878
2024	735,714
Total	$ 6,095,128

8. Mitigation Fund

California Insurance Code (Code) Section 10089.37 created the Earthquake Loss Mitigation Fund (Mitigation Fund) as a "sub-account of the CEA". According to statute, the Mitigation Fund must be used solely for the establishment and operation of an earthquake loss mitigation program. The Code requires the CEA to annually transfer an amount equal to the lesser of 5% of investment income or $5 million to the Mitigation Fund if deemed actuarially sound by a consulting actuary. The transfer and setting aside of those monies into the Mitigation Fund sub-account have been formally approved by the CEA Governing Board. It is the opinion of the general counsel of the CEA and of the CEA's outside counsel that the monies that reside in the Mitigation Fund sub-account within the CEA are by statute not available to pay policyholder or other claims against the CEA.

As of December 31, 2019, and 2018, the balance sheets include expendable restricted net position related to the Mitigation Fund totaling $13,315,861 and $16,092,656 respectively. The expendable restricted net position of the Mitigation Fund as of December 31, 2019 includes the potential annual transfer amount of $5,000,000, which is subject to actuarial review and formal approval of the CEA's Governing Board as discussed in the previous paragraph.

9. Defined Benefit Pension Plan

Plan Description

All CEA civil-service employees participate in the California Public Employees' Retirement System (CalPERS), which is included in the State of California's (State) Comprehensive Annual Financial Report as a fiduciary component unit. CalPERS administers the Public Employees' Retirement Fund (PERF). PERF is an agent multiple-employer defined benefit pension plan. CEA participates in the State Miscellaneous Plan (the Plan) in a cost-sharing arrangement in which all risks and costs are shared proportionately by participating State agencies.

9. Defined Benefit Pension Plan (Continued)

CalPERS issues a publicly available comprehensive annual financial report that may be obtained by writing to the California Public Employees' Retirement System, Fiscal Services Division, P.O. Box 942703, Sacramento, California 94229 or by visiting the CalPERS website at www.CalPERS.ca.gov under Forms and Publications.

Benefits Provided

The PERF provides service retirement and disability benefits, survivor benefits, annual cost of living adjustments and death benefits to plan members, who must be public employees and beneficiaries. CEA has civil service employees that are members of the following bargaining units: Professional Administrative, Financial and Staff Service (Bargaining Unit 1); Attorneys and Hearing Officer (Bargaining Unit 2) and Professional Scientific (Bargaining Unit 10), all of CEA's civil service employees are classified as members of the State Miscellaneous Plan. Vesting occurs after five years, or after ten years for second-tier employees. The benefit provisions are established by the Public Employees' Retirement Law (PERL) and the Public Employees' Pension Reform Act of 2013 (PEPRA). Benefits are based on a formula using a member's years of service credit, age at retirement, and final compensation (average salary for a defined period of employment). Retirement formulas vary based on:

- Classification (e.g. miscellaneous, peace officers and firefighters, or judges);
- Membership category (pre-PEPRA and post-PEPRA); and
- Specific provisions in employees' contracts.

The Plans provisions and benefits in effect at December 31, 2019 and 2018, are summarized as follows:

	State Miscellaneous Tier 1			State Miscellaneous Tier 2	
Hire date	Prior to January 15, 2011	On or after January 15, 2011	On or after January 1, 2013	Prior to January 1, 2013	On or after January 1, 2013
Benefit formula	2% @ 55	2% @ 60	2% @ 62	1.25% @ 65	1.25% @ 67
Benefit vesting schedule	5 years of service	5 years of service	5 years of service	10 years of service	10 years of service
Benefit payments	monthly for life	monthly for life	monthly for life	monthly for life	monthly for life
Retirement age	50-63	50-63	52-67	50-65	52-67
Monthly benefits, as a % of eligible compensation	1.1% - 2.5%	1.092% - 2.418%	1% - 2.5%	0.5% - 1.25%	0.65% - 1.25%

Contributions

Section 20814(a) of the California Public Employees' Retirement Law (PERL) requires that employer contribution rates for all public employers to be determined on an annual basis by the actuary and shall be effective on the July 1st following notice of a change in the rate. The total plan contributions are determined through CalPERS annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. CEA is required to contribute the difference between the actuarially determined rate and the contribution rate of employees.

9. Defined Benefit Pension Plan (Continued)

The average active employee contribution rate and the employer's actuarially determined contribution rate, expressed as a percentage of payroll, for the measurement periods ended June 30, 2018 and 2017 were:

	June 30, 2018 (the measurement date)	
	Average Active Employee Contribution Rate	Employer Contribution Rate
State Miscellaneous Plan	6.766%	28.401%

	June 30, 2017 (the measurement date)	
	Average Active Employee Contribution Rate	Employer Contribution Rate
State Miscellaneous Plan	6.737%	26.734%

For the fiscal years ended December 31, 2019 and 2018, the contributions were $1,450,315 and $1,219,273, respectively.

Senate Bill 84 (SB 84), approved by the Governor on July 10, 2017, directed the State to contribute an additional $6 billion to the State Plans during fiscal year 2017-18 to pay down the unfunded accrued liability. Payments were made in three equal installments on or around October 31, 2017, January 16, 2018 and April 17, 2018. These payments are in addition to the actuarially required contributions for fiscal year 2018-19. The CEA's portion of the $6 billion loan is $1,273,000, which includes both principal and interest. See Note 3 for further information.

Pension Liabilities, Pension Expense and Deferred Outflows/Inflows of Resources Related to Pensions

As of December 31, 2019 and 2018, CEA reported net pension liabilities for its proportionate share of the Plan's net pension liabilities in the amount of $9,621,334 and $11,070,484, respectively.

CEA's net pension liability is measured as the proportionate share of the net pension liability of the Plan. The net pension liabilities of the Plan as of December 31, 2019 are measured as of June 30, 2018, and the total pension liabilities for the Plan used to calculate the net pension liabilities were determined by an actuarial valuation as of June 30, 2017 rolled forward to June 30, 2018 using standard update procedures. The net pension liabilities of the Plan as of December 31, 2018 are measured as of June 30, 2017, and the total pension liabilities for the Plan used to calculate the net pension liabilities were determined by an actuarial valuation as of June 30, 2016 rolled forward to June 30, 2017 using standard update procedures. CEA's proportionate share of the net pension liability of the Plan was based on the State Controller's Office (SCO) projection for CEA based on its pensionable compensation (covered payroll). The SCO calculated and provided CEA with their allocated pensionable compensation percentages by Plan. CEA's proportionate share of the net pension liabilities for the Plan as of June 30, 2018 and 2017 was .030627% and .030301%, respectively.

9. Defined Benefit Pension Plan (Continued)

For the years ended December 31, 2019, and 2018 CEA recognized pension expense of $1,575,984 and $7,802,160, respectively. CEA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources as of December 31, 2019 and 2018:

	December 31, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
CEA's contributions subsequent to the measurement date	$ 2,100,020	$ -
Change in assumptions	867,898	318,999
Net differences between expected and actual experience	103,221	67,031
SB 84 Supplemental Contribution	-	-
Difference between projected and actual earnings on pension plan investments	99,396	-
	$ 3,170,535	$ 386,030

	December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
CEA's contributions subsequent to the measurement date	$ 1,721,132	$ -
Change in assumptions	1,287,979	-
Net differences between expected and actual experience	48,503	103,316
SB 84 Supplemental Contribution	1,091,000	-
Difference between projected and actual earnings on pension plan investments	314,026	-
	$ 4,462,640	$ 103,316

The amounts reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in future periods. Other amounts reported as deferred inflows of resources related to pensions will be amortized into pension expense in future years.

9. Defined Benefit Pension Plan (Continued)

Actuarial Assumptions

For the measurement period ended June 30, 2018 (measurement date), the total pension liability was determined by rolling forward the June 30, 2017 total pension liability using standard update procedures. The June 30, 2017 and the June 30, 2018 total pension liabilities of all Plans were based on the following actuarial method and assumptions:

Actuarial Cost Method	Entry Age Normal
Actual Assumptions	
Discount Rate	7.15%
Inflation	2.50%
Salary Inflation	Varies by Entry Age and Service
Mortality Rate Table (1)	Derived using CalPERS' Membership Data for all Funds
Post Retirement Benefit Increase	Contract COLA up to 2.00% until Purchasing Power Protection Allowance. Floor on Purchasing Power applies, 2.50% thereafter

The mortality table used was developed based on CalPERS' specific data. The table includes 15 years of mortality improvements using the Society of Actuaries 90% of Scale MP 2016. For more details on this table, please refer to the 2017 CalPERS Experience Study and Review of Actuarial Assumptions report (Experience Study).

All other actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from 1997 to 2015, including updates to salary increase, mortality and retirement rates. The Experience Study report is available at www.CalPERS.ca.gov.

9. Defined Benefit Pension Plan (Continued)

For the measurement period ended June 30, 2017 (measurement date), the total pension liability was determined by rolling forward the June 30, 2016 total pension liability using standard update procedures. The June 30, 2016 and the June 30, 2017 total pension liabilities of all Plans were based on the following actuarial method and assumptions:

Actuarial Cost Method	Entry Age Normal
Actual Assumptions	
Discount Rate	7.15%
Inflation	2.75%
Salary Inflation	Varies by Entry Age and Service
Mortality Rate Table (1)	Derived using CalPERS' Membership Data for all Funds
Post Retirement Benefit Increase	Contract COLA up to 2.75% until Purchasing Power Protection Allowance. Floor on Purchasing Power applies, 2.75% thereafter

The mortality table used was developed based on CalPERS' specific data. The table includes 20 years of mortality improvements using Society of Actuaries Scale BB. For more details on this table, please refer to the 2014 experience study report.

All other actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from 1997 to 2011, including updates to salary increase, mortality and retirement rates. The Experience Study report may be accessed on the CalPERS website at www.calpers.ca.gov under Forms and Publications.

Discount Rate

The discount rate used to measure the total pension liability was 7.15%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from plan members will be made at statutorily required rates, actuarially determined. Based on those assumptions, the Plans' fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total pension liability. CalPERS' approach for the cash flow projections are presented in the GASB 67 and 68 Crossover Testing Report, which may be obtained from the CalPERS' website.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

9. Defined Benefit Pension Plan (Continued)

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Using historical returns of all of the funds' asset classes, expected compound (geometric) returns were calculated over the short-term (first 10 years) and the long-term (11+ years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the rounded single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equal to the single equivalent rate calculated above and adjusted to account for assumed administrative expenses.

For the measurement period ended June 30, 2018 (measurement date), the table below reflects long-term expected real rate of return by asset class. The Real Return Years 1-10 used an expected inflation rate of 2.00% for this period. The Real Return Years 11+ used an expected inflation rate of 2.92% for this period.

Asset Class	Current Target Allocation	Real Return Years 1 - 10 [1]	Real Return Years 11+ [2]
Global Equity	50.00%	4.80%	5.98%
Fixed Income	28.00%	1.00%	2.62%
Inflation Assets	-	0.77%	1.81%
Private Equity	8.00%	6.30%	7.23%
Real Estate	13.00%	3.75%	4.93%
Liquidity	1.00%	-	-0.92%

(1) An expected inflation of 2.0% used for this period
(2) An expected inflation of 2.92% used for this period

For the measurement period ended June 30, 2017 (measurement date), the table below reflects long-term expected real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and allocation. The target allocation shown was adopted by the Board effective on July 1, 2014.

Asset Class	Current Target Allocation	Real Return Years 1 - 10 [1]	Real Return Years 11+ [2]
Global Equity	47.00%	4.90%	5.38%
Global Fixed Income	19.00%	0.80%	2.27%
Inflation Sensitive	6.00%	0.60%	1.39%
Private Equity	12.00%	6.60%	6.63%
Real Estate	11.00%	2.80%	5.21%
Infrastructure and Forestland	3.00%	3.90%	5.36%
Liquidity	2.00%	-0.40%	-0.90%

9. Defined Benefit Pension Plan (Continued)

(1) An expected inflation of 2.5% used for this period
(2) An expected inflation of 3.0% used for this period

Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents CEA's proportionate share of the net pension liabilities of the Plan as of June 30, 2018 (measurement date), calculated using the discount rate of 7.15% as well as what CEA's proportionate share of the net pension liabilities would be if it were calculated using a discount rate 1 percentage point lower (6.15%) or 1 percentage point higher (8.15%) than the current discount rate:

	State Miscellaneous		
	Discount Rate - 1% (6.15%)	Current Discount Rate (7.15%)	Discount Rate +1% (8.15%)
CEA's proportionate share of plan's net pension liability	$13,793,409	$9,621,334	$6,125,139

The following presents CEA's proportionate share of the net pension liabilities of the Plan as of June 30, 2017 (measurement date), calculated using the discount rate of 7.15% as well as what CEA's proportionate share of the net pension liabilities would be if it were calculated using a discount rate 1 percentage point lower (6.15%) or 1 percentage point higher (8.15%) that the current discount rate:

	State Miscellaneous		
	Discount Rate - 1% (6.15%)	Current Discount Rate (7.15%)	Discount Rate +1% (8.15%)
CEA's proportionate share of plan's net pension liability	$15,145,766	$11,070,484	$7,660,109

Pension Plan Fiduciary Net Position

Detailed information about the State of California Miscellaneous Plan's fiduciary net position is available in the separately issued CalPERS financial reports.

10. Defined Contribution Plan

The CEA sponsors the California Earthquake Authority Retirement Plan (Plan), a 401(A) defined contribution savings plan for contract employees. The Plan is administered by UBS Financial Services. Employees contribute 5% of base compensation. The CEA contributes 12.71% of the employee's base compensation. The maximum base compensation for 2019 and 2018 was $280,000 and $275,000, respectively. The contributions are funded semi-annually and allocated to the CEA based on employee contributions.

Employees are fully vested in their account from the beginning of their employment. The CEA has no legal obligation for benefits under this Plan. Only the CEA Board has the authority to amend the Plan provisions. Employee contributions in 2019 and 2018 were $99,961 and $90,738, respectively. CEA's contributions in 2019 and 2018 were $254,319 and $230,857, respectively.

11. Risk Management

The CEA is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The CEA has insurance policies with private insurance companies for the following policies:

Policy Type	Policy Limits
Workers Compensation	$ 1,000,000
Financial Institution Bond	$ 1,500,000
Business Liability	$ 5,000,000
Director and Officers Liability	$ 5,000,000

Management believes such coverage is sufficient to preclude any significant uninsured losses to the CEA. Claim amounts have not exceeded policy limits in the last three years.

12. California Residential Mitigation Program

On August 16, 2011, the CEA entered into a Joint Powers Agreement (JPA) with the California Emergency Management Agency (Cal EMA) to create the California Residential Mitigation Program (CRMP) for the purpose of supplying grants, loans, and loan guarantees (and related assistance and incentives) to owners of dwellings in California. Since the inception of the agreement, CalEMA, the name of the organization, has changed to California Emergency Office of Emergency Services (Cal OES). The CRMP Governing Board is comprised of two representatives of each the CEA and Cal OES. Transfers approved by the CEA governing board from the CEA Mitigation Fund to the CRMP totaled $6,300,000 and $8,900,000 in 2019 and 2018, respectively.

In addition to the CEA governing board approved transfers, in 2019, the CEA Mitigation Fund (Mitigation) transferred to CRMP $62,980 in Federal Emergency Management Agency (FEMA) funds for the CRMP Earthquake Brace + Bolt program (CRMP EBB) which offers up to $3,000 for homeowners to seismically retrofit their houses. In 2018, Mitigation transferred to CRMP $18,626 in FEMA funds for the CRMP EBB.

Requests for CRMP financial information should be addressed to California Residential Mitigation Program, 801 K Street, Suite 1000, Sacramento, CA 95814.

13. Custodial Funds

In July 2019, the California Legislature passed, and the Governor signed AB 1054 and AB 111. The 2019 Wildfire Legislation enacted a broad set of reforms and programs related to utility-caused wildfires in California. The 2019 Wildfire Legislation, which took immediate effect upon the Governor's signature, established the California Wildfire Fund (CWF). The purpose of the CWF is to provide a source of money to pay or reimburse eligible claims arising from a covered wildfire caused by a utility company which participates in the CWF by assisting in capitalizing the Fund, and undertaking certain other obligations specified in the law.

Governance of the CWF is the responsibility of the newly created California Catastrophe Response Council (Council). The Council has 9-members, consisting of (1) the Governor; (2) the Insurance Commissioner, (3) the Treasurer, (4) the Secretary of Natural Resources, (5&6) two members appointed by the Senate and the Assembly, and (7, 8 & 9) three members of the public appointed by the Governor. The Council is charged with appointing a permanent "Administrator" for the CWF. Until such time as the permanent Administrator is appointed, the legislation provides for the CEA to act as the Interim Administrator. In April 2020, CEA was named the permanent administrator.

The 2019 Wildfire Legislation created a capitalization structure that will result in a total of $21 billion flowing into the CWF to provide claim-paying capacity after utility-caused wildfires. The $21 billion in funding is split between surcharges on utility ratepayers and contributions from the three large investor-owned utility companies in California. The legislation also required that the CWF be initially capitalized in the form of a short term $2 billion loan from the Treasurer's Surplus Money Investment Fund (SMIF), a fund within the State's Pooled Money Investment Account. Executive management has been working with the Department of Water Resources (DWR), State Treasurer's Office, Department of Finance, CPUC, municipal advisors, underwriters and law firms to prepare for the issuance of DWR bonds, backed by the CPUC-approved ratepayer surcharges. The proceeds of the issuance of DWR bonds will first be used to repay the SMIF loan, with any residual proceeds being deposited into the CWF to provide claim-paying liquidity. The bonds will be secured by a pledge of the ratepayer surcharges to be collected from ratepayers of the participating investor owned utility companies. Once the DWR bonds are repaid, the surcharge funds will flow directly into the CWF. During 2019, the CWF received $2,792,400,00 in contributions from two of the investor-owned utility companies.

The 2019 Wildfire Legislation also requires that all costs and expenses related to the administration and operation of the Wildfire Fund be paid from the assets of the Wildfire Fund. Because CEA is now obligated to administer two separate and segregated funds – the Earthquake Authority Fund and the Wildfire Fund – and is using its operating assets and employees for the benefit of both funds, CEA is required to develop and implement a cost allocation methodology to ensure that each of the funds bear their own expenses. CEA has developed a methodology and systems to accomplish a fair and reasonable allocation of expenses between the two funds and will submit the methodology and systems to the Governing Board for approval in 2020.

Under GASB 84, because the CEA is custodian of the CWF's cash and investments, the holding of these assets is considered a fiduciary activity. This requires the CEA to report these held assets as a custodial fund in CEA's separate stand-alone financial statements. The CWF does not issue a stand-alone financial report.

Summary of Significant Accounting Policies

The financial statements of the Custodial Fund are prepared using the accrual basis of accounting.

13. Custodial Funds (Continued)

Cash and Investments

As of December 31, 2019, the CWF had the following cash and investments:

	December 31, 2019					
	Investment Maturities (in Years)					
	Less Than 1	1-2	2-3	3-4	4-5	Total
U. S. Treasuries	$1,304,146,493	$ 838,393,289	$ 765,632,851	$ 867,923,802	$ 785,557,836	$4,561,654,271
Commercial Paper	79,276,869	-	-	-	-	79,276,869
Corporate Bond	93,156,006	-	-	-	-	93,156,006
Certificate of Deposit	10,002,500	-	-	-	-	10,002,500
Cash	15,296,278	-	-	-	-	15,296,278
Money Market	11,480,897	-	-	-	-	11,480,897
Total	$1,513,359,043	$ 838,393,289	$ 765,632,851	$ 867,923,802	$ 785,557,836	$4,770,866,821

The table below identifies the investment types that are authorized for the CWF by the California Government Code or CWF's investment policy, where more restrictive. The table also identifies certain provisions of the CWF's investment policy that address interest rate risk, credit risk, and concentration risk.

Primary Fund:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment In One Issuer
U.S. Treasury Securities	5 years	None	None
Federal Agency Securities	N/A	None	None
Bankers Acceptances (BA)	N/A	None	None
Certificates of Deposit	N/A	None	None
Commercial Paper	N/A	None	None
Corporate Bonds/Notes	N/A	None	None

Claims Paying Fund:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment In One Issuer
U.S. Treasury Securities	5 years	None	None
Federal Agency Securities	180 days	50%	25%
Bankers Acceptances (BA)	180 days	25%	5%
Certificates of Deposit	180 days	25%	5%
Commercial Paper	180 days	25%	5%
Corporate Bonds/Notes	180 days	25%	5%

13. Custodial Funds (Continued)

Interest Rate Risk

As a means of limiting its exposure to fair value losses resulting from rising interest rates, the CWF's investment policy limits all securities purchased to a maximum maturity duration of 180 days, except for U.S. Treasuries. U.S. Treasuries are allowed to have maturities of up to 5 years as long as the CWF's combined portfolio does not exceed a maximum modified duration of 3 years. As of December 31, 2019, the CWF's combined portfolio had a maximum modified duration of 2.1 years.

Credit Risk

The CWF investment policy limits investments in banker's acceptances and commercial paper to issuers with the highest rating category by all rating agencies that rate the issuer. The policy limits investments in corporate bonds to the top three ratings issued by nationally recognized rating services. As of December 31, 2019, 96% of the portfolio consisted of U.S. Treasuries and 4% of the portfolio consisted of commercial paper, corporate bond, certificate of deposit, cash, and money market funds.

CWF's cash equivalents and investments are rated as follows:

Security Type	Moody's*	Standard & Poor's*
US Treasury	Aaa	AA+
Federal Home Loan Mortgage Corporation	Aaa	AA+
Fannie Mae	Aaa	AA+
Chevron Corporation	Aa2	AA
Coca Cola	A1	A+
Pfizer Inc.	A1	AA-
Toyota Motor Credit Corporation	A1	AA-
BNP Paribas	Aa3	A+
American Honda Financial Corporation	A3	A
Thunder Bay LLC	NR	NR
Liberty Street Corporation	NR	NR
Walt Disney Corporation	A2	A-
Mitsubishi UFJ Financial Group	A1	A
JP Morgan Securities LLC	Aa3	A+
John Deere	A2	A
General Dynamic	A2	A
HSBC USA Inc.	A2	A-
Nevada Power Corporation	Baa1	A
Philip Morris	A2	A
Boeing	A3**	A1**

*Although U.S. Treasury is the only security type that can be held long term, the long-term rating is used as the short-term rating equivalent is too broad to show much difference between security type.

**In December 2019, the bond was downgraded to A3/A1, which is out of compliance. The decision was made to hold the security until it matured on 2/15/2020.

13. Custodial Funds (Continued)

Concentration of Credit Risk

There is no concentration of investments in any one non-U.S. Governmental issuer, which is not explicitly guaranteed, that represents 5% or more of total investments.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of failure of a depository financial institution, the CWF will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The CWF has no policy that would limit the exposure to custodial credit risk for deposits. At December 31, 2019 approximately $15.0 million of CWF deposits were not covered by FDIC insurance.

Investment Income

Total investment income is comprised of interest, realized gains and losses, and unrealized gains and losses due to changes in the fair value of investments held at year end.

Investment income for the year ended December 31, 2019 is as follows:

Interest income	25,843,996
Change in fair value of investments	(9,809,764)
Less investment expenses	(670,355)
Net investment income	$ 15,363,877

Fair Value Measurement

The CWF categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is divided into 3 levels with each level based on the source used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The asset's level within the hierarchy is based on the lowest level of input that is significant to the fair value measurement. The CWF's assessment of the significance of particular inputs to these fair value measurements requires judgement and considers factors specific to each asset or liability.

U.S. treasury securities and corporate bonds classified as Level 1 measurements are valued using prices quoted in active markets for those securities.

The fair value of commercial paper was determined to be amortized cost due to the short-term duration of the security and is classified in Level 2 measurement. Certificates of deposit are valued at amortized cost, which approximates fair value, and is classified in Level 2 measurement.

13. Custodial Funds (Continued)

As of December 31, 2019, the CWF had the following recurring fair value measurements:

	Fair Value Measurement Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Bonds:				
U.S. Treasuries	$ 4,423,061,492	$ -	$ -	$ 4,423,061,492
Commercial Paper	-	73,734,546	-	73,734,546
Corporate Bond	93,156,006	-	-	93,156,006
Certificate of Deposit	-	10,002,500	-	10,002,500
Subtotal	4,516,217,498	83,737,046	-	4,599,954,544
Cash and cash equivalents:				
U.S. Treasuries	138,592,779	-	-	138,592,779
Commercial Paper	-	5,542,323	-	5,542,323
Cash	15,296,278	-	-	15,296,278
Money Market	11,480,897	-	-	11,480,897
Subtotal	165,369,954	5,542,323	-	170,912,277
Total	$ 4,681,587,452	$ 89,279,369	$ -	$ 4,770,866,821

14. Subsequent Events

Management has evaluated subsequent events up through and including June 2, 2020, which is the date the financial statements were made available to be issued. No events, other than those disclosed below and elsewhere in these financial statements, have occurred subsequent to December 31, 2019 requiring recording or disclosure in these financial statements.

On March 17, 2020 CEA issued Series 2020A revenue bonds totaling $400,000,000, summarized as follows:

Principal Amount	Interest Rate	Price or Yield	Maturity Date
$400,000,000	1.300%	1.300%	July 1, 2020

The CEA made a debt service deposit for the Series 2020A bonds that will pre-fund principal and interest payments due upon maturity and are invested in Treasury money market funds. The Series 2020A bonds will be repaid by pledged revenues, which consist of pledged policyholder premiums (defined as premiums for basic residential earthquake policies net of participating insurer costs) and interest and other income from investment of funds held by the trustee and debt service deposits. The proceeds of the revenue bonds were deposited in the 2020A claims paying account and the interest earnings will help to offset the interest costs on the revenue bonds.

On April 23, 2020, the California Catastrophe Response Council, which oversees the CWF, formally named the CEA the fund’s administrator. The CWF was established by the California Legislature, under Assembly Bill 1054 and Assembly Bill 111, and was signed into law on July 12, 2019. At that time, CEA was designated the fund’s interim administrator until the nine-member California Catastrophe Response Council could be formed and appoint an administrator.

The large-scale COVID-19 pandemic may have adverse effects on the CEA’s business operations and may cause disruptions in commerce, liquidity, and economic activity in California over an extended period of time. While it is not yet possible to estimate the financial impact, a large-scale pandemic could have a material adverse effect on the CEA’s financial position and results of operations.

REQUIRED SUPPLEMENTARY INFORMATION

CALIFORNIA EARTHQUAKE AUTHORITY

Schedule of CEA's Proportionate Share of the Net Pension Liability
For the Years Ended December 31, 2019 and 2018
Last 10 Years *

	2019 **	2018 ***
State Miscelleaneous Plan		
CEA's proportion of the net pension liability	0.030627%	0.030301%
CEA's proportionate share of the net pension liability	$9,621,334	$11,070,484
CEA's covered-employee payroll	$3,753,177	$3,512,318
CEA's proportionate share of the net pension liability as percentage of their covered-employee payroll	256.35%	315.19%
Plan fiduciary net position as a percentage of the total pension liability	71.83%	66.42%

Notes to Schedule:

* - 2018 was the 1st year of implementation of GASB 68, therefore only two years are presented

** - Information is as of the June 30, 2018 measurement date.

*** - Information is as of the June 30, 2017 measurement date.

CALIFORNIA EARTHQUAKE AUTHORITY

Schedule of CEA’s Contributions: Pension Plan
For the Years Ended December 31, 2019 and 2018
Last 10 Years *

	2019	2018
State Miscellaneous Plan		
Contractually required contribution	$1,450,315	$1,219,273
Contributions in relation to the contractually required contribution	(1,450,315)	(1,219,273)
Contribution deficienty (excess)	$0	$0
CEA's covered-employee payroll	$3,753,177	$3,512,318
Contributions as a percentage of covered-employee payroll	38.64%	34.71%

Notes to Schedule:
* - 2018 was the 1st year of implementation of GASB 68, therefore only two years are presented

SUPPLEMENTARY INFORMATION

CALIFORNIA EARTHQUAKE AUTHORITY

Schedule of Participating Insurer Capital Contributions
From Inception Through December 31, 2019

1	State Farm General Insurance Company	$ 254,658,275
2	Allstate Insurance Company	145,612,517
3	The Fire Insurance Exchange (Farmers)	143,280,000
4	United Services Automobile Association[1]	58,992,512
5	Safeco Insurance Company of America[3]	46,500,000
6	California State Automobile Association Inter-Insurance Bureau[2]	39,013,494
7	Nationwide Insurance Company[7]	20,772,000
8	California FAIR Plan Association	15,029,487
9	Interinsurance Exchange of the Automobile Club	14,443,651
10	CNA/Continental[4,6,12]	13,924,611
11	Amica[11]	13,272,000
12	Prudential[4]	11,531,455
13	Liberty Mutual Fire Insurance Company[5]	6,699,434
14	Foremost Property and Casualty Insurance Company	4,614,304
15	Mercury Casualty Company	1,406,238
16	Armed Forces Insurance Exchange	783,685
17	GuideOne (formerly Preferred Risk)[4]	123,133
18	Homesite Insurance Company of California	-
19	Pacific National Insurance[4]	-
20	Encompass Insurance Company	-
21	Glen Falls Insurance Company[4]	-
22	Commerce West Insurance Company[8]	-
23	Hyundai[9]	-
24	Progressive[10]	-
	Total	$ 790,656,796

[1] Includes Garrison Insurance Company
[2] Includes ACA Insurance Company
[3] Joined the CEA as of December 1, 2008
[4] Not currently writing residential property insurance in California
[5] Includes Golden Eagle Insurance Company
[6] Withdrew from the CEA as of May 2011
[7] Joined the CEA as of November 2011
[8] Includes MAPFRE Insurance Company
[9] Joined the CEA as of August 2014
[10] Joined the CEA as of May 2015
[11] Joined the CEA as of August 2018
[12] Allstate bought CNA in 1999 and is writing underneath Encompass.

CALIFORNIA EARTHQUAKE AUTHORITY

Schedules of Participating Insurer Premiums Written
For the Years Ended December 31, 2019 and 2018

	2019	2018
1 State Farm General Insurance Company	$ 271,105,855	$ 258,911,457
2 Allstate Insurance Company	72,353,065	72,258,079
3 The Fire Insurance Exchange (Farmers)	108,605,541	102,130,047
4 United Services Automobile Association[1]	107,237,607	102,821,271
5 Safeco Insurance Company of America[3]	48,428,142	46,636,149
6 California State Automobile Association Inter-Insurance Bureau[2]	45,627,380	43,669,924
7 Nationwide Insurance Company[7]	20,049,270	21,693,400
8 California FAIR Plan Association	3,938,343	4,222,771
9 Interinsurance Exchange of the Automobile Club	57,329,894	57,282,769
10 CNA/Continental[4,6,12]	-	-
11 Amica[11]	10,423,677	1,448,137
12 Prudential[4]	-	-
13 Liberty Mutual Fire Insurance Company[5]	17,817,693	18,897,890
14 Foremost Property and Casualty Insurance Company	5,870,418	5,571,993
15 Mercury Casualty Company	38,288,704	34,633,993
16 Armed Forces Insurance Exchange	523,642	532,881
17 GuideOne (formerly Preferred Risk)[4]	-	-
18 Homesite Insurance Company of California	3,503,397	2,689,790
19 Pacific National Insurance[4]	-	-
20 Encompass Insurance Company	3,844,775	3,856,512
21 Glen Falls Insurance Company[4]	-	-
22 Commerce West Insurance Company[8]	140,640	161,625
23 Hyundai[9]	105	2,503
24 Progressive[10]	1,552,731	919,793
Total	$ 816,640,879	$ 778,340,984

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[7] Joined the CEA as of November 2011
[8] Includes MAPFRE Insurance Company
[9] Joined the CEA as of August 2014
[10] Joined the CEA as of May 2015
[11] Joined the CEA as of August 2018
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CALIFORNIA EARTHQUAKE AUTHORITY

Schedule of Participating Insurer Unearned Premium
For the Years Ended December 31, 2019 and 2018

	2019	2018
1 State Farm General Insurance Company	$ 132,712,656	$ 130,041,112
2 Allstate Insurance Company	36,233,691	37,642,185
3 The Fire Insurance Exchange (Farmers)	53,119,222	52,246,052
4 United Services Automobile Association[1]	67,163,549	66,424,578
5 Safeco Insurance Company of America[3]	29,705,422	29,524,621
6 California State Automobile Association Inter-Insurance Bureau[2]	23,949,350	22,103,517
7 Nationwide Insurance Company[7]	10,093,054	11,083,312
8 California FAIR Plan Association	1,884,092	2,150,515
9 Interinsurance Exchange of the Automobile Club	26,809,779	28,803,785
10 CNA/Continental[4,6,12]	-	-
11 Amica[11]	5,259,394	1,404,946
12 Prudential[4]	-	-
13 Liberty Mutual Fire Insurance Company[5]	10,592,193	11,462,452
14 Foremost Property and Casualty Insurance Company	2,983,535	2,893,315
15 Mercury Casualty Company	18,225,554	17,414,318
16 Armed Forces Insurance Exchange	270,286	286,970
17 GuideOne (formerly Preferred Risk)[4]	-	-
18 Homesite Insurance Company of California	1,735,488	1,411,291
19 Pacific National Insurance[4]	-	-
20 Encompass Insurance Company	1,848,217	1,891,804
21 Glen Falls Insurance Company[4]	-	-
22 Commerce West Insurance Company[8]	66,163	79,479
23 Hyundai[9]	24	1,433
24 Progressive[10]	941,409	582,516
Total	$ 423,593,078	$ 417,448,201

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[6] Withdrew from the CEA as of May 2011
[7] Joined the CEA as of November 2011
[8] Includes MAPFRE Insurance Company
[9] Joined the CEA as of August 2014
[10] Joined the CEA as of May 2015
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CALIFORNIA EARTHQUAKE AUTHORITY

Schedule of Participating Insurer Commissions
For the Years Ended December 31, 2019 and 2018

	2019	2018
1 State Farm General Insurance Company	$ 27,110,724	$ 25,889,777
2 Allstate Insurance Company	7,235,561	7,225,527
3 The Fire Insurance Exchange (Farmers)	10,860,967	10,213,230
4 United Services Automobile Association[1]	10,724,040	10,281,946
5 Safeco Insurance Company of America[3]	4,844,130	4,664,433
6 California State Automobile Association Inter-Insurance Burea	4,562,937	4,367,029
7 Nationwide Insurance Company[7]	2,005,005	2,169,214
8 California FAIR Plan Association	393,855	422,289
9 Interinsurance Exchange of the Automobile Club	5,740,084	5,734,389
10 CNA/Continental[4,6,12]	-	-
11 Amica[11]	1,042,550	144,815
12 Prudential[4]	-	-
13 Liberty Mutual Fire Insurance Company[5]	1,782,812	1,890,562
14 Foremost Property and Casualty Insurance Company	585,192	555,458
15 Mercury Casualty Company	3,828,792	3,463,200
16 Armed Forces Insurance Exchange	52,365	53,291
17 GuideOne (formerly Preferred Risk)[4]	-	-
18 Homesite Insurance Company of California	350,748	269,202
19 Pacific National Insurance[4]	-	-
20 Encompass Insurance Company	384,491	385,637
21 Glen Falls Insurance Company[4]	-	-
22 Commerce West Insurance Company[8]	14,073	16,163
23 Hyundai[9]	11	250
24 Progressive[10]	155,279	91,970
Total	$ 81,673,616	$ 77,838,382

[1] Includes Garrison Insurance Company
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[6] Withdrew from the CEA as of May 2011
[7] Joined the CEA as of November 2011
[8] Includes MAPFRE Insurance Company
[9] Joined the CEA as of August 2014
[10] Joined the CEA as of May 2015
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CALIFORNIA EARTHQUAKE AUTHORITY

Schedule of Participating Insurer Operating Costs
For the Years Ended December 31, 2019 and 2018

		2019	2018
1	State Farm General Insurance Company	$ 8,752,116	$ 8,410,994
2	Allstate Insurance Company	2,335,189	2,346,983
3	The Fire Insurance Exchange (Farmers)	3,504,780	3,317,137
4	United Services Automobile Association[1]	3,455,617	3,339,490
5	Safeco Insurance Company of America[3]	1,560,561	1,515,022
6	California State Automobile Association Inter-Insurance Bureau	1,471,930	1,419,132
7	Nationwide Insurance Company[7]	646,832	704,491
8	California FAIR Plan Association	127,166	137,217
9	Interinsurance Exchange of the Automobile Club	1,849,026	1,859,626
10	CNA/Continental[4,6,12]	-	-
11	Amica[11]	336,370	47,058
12	Prudential[4]	-	-
13	Liberty Mutual Fire Insurance Company[5]	573,951	613,790
14	Foremost Property and Casualty Insurance Company	187,846	179,435
15	Mercury Casualty Company	1,236,159	1,125,290
16	Armed Forces Insurance Exchange	16,889	17,292
17	GuideOne (formerly Preferred Risk)[4]	-	-
18	Homesite Insurance Company of California	112,933	87,362
19	Pacific National Insurance[4]	-	-
20	Encompass Insurance Company	124,196	125,315
21	Glen Falls Insurance Company[4]	-	-
22	Commerce West Insurance Company[8]	4,526	5,251
23	Hyundai[9]	4	81
24	Progressive[10]	50,040	29,867
	Total	$ 26,346,131	$ 25,280,833

[1] Includes Garrison Insurance Company
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[7] Joined the CEA as of November 2011
[8] Includes MAPFRE Insurance Company
[9] Joined the CEA as of August 2014
[10] Joined the CEA as of May 2015
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CEA CALIFORNIA EARTHQUAKE AUTHORITY™
THE STRENGTH TO REBUILD®

Governing Board Memorandum

11 June 2020

Agenda Item 10: Chief Risk & Actuarial Officer Shawna Ackerman will update the Board on the CEA Enterprise Risk Management Program.

Recommended Action: No action required—information only

The CEA Enterprise Risk Management (ERM) Program is focused on monitoring and managing 12 priority risks:

Financial Risks	Insurance Risks	Operational Risks	Strategic Risks
• Risk Transfer • Financial Management – Investments and Accounting	• Policy Contracting and Servicing • Claim Handling • Earthquake Science and Modeling • CEA Residential Mitigation programs	• Business Continuity • IT Systems and Data Security • Legal – Compliance and Litigation • Workforce	• Legislative/Regulatory • Reputation

Since a major, damaging earthquake occurring in California is an overarching risk consideration for CEA, each priority risk in CEA's ERM program is assessed from both a normal "steady-state" perspective *and* a post-earthquake or "stressed" perspective.

The following scorecard represents CEA ERM risk-reporting on these priority risks for 2nd quarter 2020 and includes all activity since the April 10, 2020 CEA Governing Board meeting. The column "Q2 2020" indicates risk status and whether a risk escalation occurred during the preceding months. The column named Outlook indicates the potential future direction of the risk status—as either positive, negative, or stable—until the CEA Governing Board next meets. The final column is a brief summary of actions taken and risk-escalation status.

ERM Quarterly Report	Status		11-Jun-20
Priority Risk	**Q2 2020**	**Outlook**	**Activity Last Quarter / Comments**
Risk Transfer	●	Stable	
Financial Management - Investments and Accounting	●	Stable	
Policy Sales and Servicing	●	Stable	
Business Continuity	●	Stable	
IT Systems and Data Security	●	Positive	Cyber insurance secured
Legislative/Regulatory	●	Positive	
Claim Handling	●	Stable	
Legal - Compliance and Litigation	●	Stable	
Reputation	●	Stable	
Earthquake Science and Modeling	●	Stable	
Workforce	●	Stable	
Residential Mitigation Programs	●	Stable	

Legend	
●	No risk checkpoints or limits reached.
▲	Approaching or reached a risk checkpoint.
◆	Approaching or reached a risk limit.

The one continuing issue from prior reports has been resolved through the purchase of cyber insurance under terms and conditions consistent with the Board's approval at the April 10, 2020 meeting.

ERM Risk Status for COVID-19					
Priority Risks	Status	Outlook	Mitigation	Appetite and Tolerance	Activity/Comments
Financial					
Risk Transfer	●	Negative	●	●	Tracking surplus, ratings and market status
Investments	●	Stable	●	●	Will see decreases due to interest rate reductions
Accounting	●	Stable	●	●	Premium write-offs expected
Insurance					
Policy Sales and Servicing	●	Stable	●	●	Possible longer-term decrease in take-up
Claim Handling	●	Stable	●	●	No impact to CEA claims
Earthquake Science and Modeling	●	Stable	●	●	No impact. Critical vendors have been contacted and are available
Residential Mitigation Programs	●	Stable	●	●	Retrofitting program is underway
Operational					
Business Continuity	●	Stable	●	●	Good monitoring in place. All critical vendors contacted.
IT Systems and Data Security	●	Stable	●	●	Expecting and observed increase in phishing; intermittent slowdowns in connectivity
Legal - Compliance and Litigation	●	Stable	●	●	
Workforce	●	Stable	●	●	100% work-from-home since mid-March
Strategic					
Legislative/Regulatory	●	Stable	●	●	Monitoring activities
Reputation	●	Stable	●	●	Website, messaging
					May 26, 2020

We continue to actively monitor our risks with COVID-19 top of mind. Currently there is no significant impact on CEA's business operations or financial position. However, the impacts may change over time depending on how long the disruptions last and we will continue to monitor the situation and report to the Board.

The Chief Risk & Actuarial Officer and support staff are continuing their work with the ERM Committee to advance the risk culture and ERM awareness within CEA and build out the enterprise-wide risk-management framework, consistent with the principles of the Own Risk and Solvency Assessment ("ORSA") guidance of the National Association of Insurance Commissioners.

The 2020 ERM Program Plan includes regular reviews of each priority-risk and corresponding risk control summary, consideration of potential emerging risks and addressing post-earthquake response-planning priorities revealed through the ERM efforts. Most recently, CEA formalized its risk and compliance committee, which is designed to keep CEA aware of current industry compliance and enterprise risk management standards and to ensure that the organization is operating in accordance with its risk appetite, delegating risk ownership to the appropriate department and personnel, managing remediation requirements, and operating in a way consistent with expectations of the Governing Board.

CALIFORNIA EARTHQUAKE AUTHORITY
THE STRENGTH TO REBUILD®

Governing Board Memorandum

11 June 2020

Agenda Item 11: Status Report on CEA Purchase Agreement with Microsoft for Azure™ services

Recommended Action: No action required—information only.

<u>Background:</u>

a. History of CEA's IT Platforms, Technology, & Services

At the time of its statutory formation in 1997, CEA was structured as a risk-bearing earthquake insurance company that was required to rely entirely on the back-office policy administration and claims administration resources and data systems of its participating insurers (PIs). CEA collected insurance data from its PIs via a third-party vendor tasked with developing and maintaining a repository for CEA to use for reporting. CEA internal office used the Microsoft Office Suite and Microsoft server software to maintain an internal network to store, share, print, and backup staff files.

In 2006, CEA made the business decision to develop, maintain, and operate its own insurance data repository for financial and data integrity reasons. CEA repository was developed on the Microsoft SQL database platform and relied on Microsoft programming technologies such as .NET to meet CEA business needs. The repository resided on CEA servers and hardware.

This IT model continued until, in 2016, after over a year and a half of analysis, CEA made the business decision to begin migrating certain IT functions and services to the cloud. Because CEA was built on the Microsoft technology stack, Microsoft Azure™™ was chosen to be CEA cloud platform for its competitive rates and a straight-forward migration path, producing significant savings associated with start-up costs. At this time, CEA entered into a three-year commitment with Microsoft to spend a minimum amount on cloud services on an annual basis. The three-year commitment was chosen because of the cost savings when compared to purchasing the same services from Microsoft on a month-to-month plan.

The original three-year commitment with Microsoft expired June 30, 2019. Rather that enter into a new three year commitment with Microsoft for Azure™™ services, CEA chose to extend the original agreement one year in order to give time to better determine costs and schedules associated with CEA's Centralized Policy Processing (CPP) system, the expanded Earthquake Brace+Bolt (EBB) system, and the migration of the current CEA insurance data repository to the Microsoft Azure™ platform. The one-year extension expires June 30, 2020.

The Microsoft commitment does not provide for customer refunds. Therefore, a critical first step is to understand and have confidence in the projected CEA annual spend. CEA spend on Microsoft Azure™ services has steadily risen over the last four years, as illustrated in the table below:

Year	Total Spend	% Change	Justification
2016	$66,912	N/A	Year 1 of the three-year Microsoft Azure™ commitment; Microsoft Azure™ testing and migration begins
2017	$390,057	+483%	Year 2 of the three-year Microsoft Azure™ commitment; migration of CEA functions and data continues; CEA office functions and files, including email, migrated to Azure™; MS SharePoint deployed; begin migration of website functions to Azure™
2018	$725,697	+86%	Year 3 of the three-year Microsoft Azure™ commitment; CEA hosts two CPP PIs; EBB system migrated to Azure™; increase in use and storage within MS SharePoint; complete migration of website functions to Azure™
2019	$1,007,656	+39%	One-year extension of the three-year Microsoft Azure™ commitment; CEA hosts a third CPP PI; preparations to migrate the insurance data repository begin; migration to MS Teams begins

The projected MS Azure™ spend for 2020 is $1,202,399, which would be a 19% increase from 2019 and include the cost to add a new PI (Toggle) to CPP and host CEA insurance repository. The six-month trending (November 2019 through April 2020) show the MS Azure™ Daily spend increasing from $3,086 to $3,459 which equals a 12.1% increase ($373/day).

The MS Azure™ cost to add a PI to CPP is $136/day or $49,640 per year. The MS Azure™ cost to migrate CEA insurance repository to the cloud is $256/day or $93,440 per year. These two costs equal $392/day, which accounts for the 12.1% increase. Other CEA MS Azure™ costs are staying the same or decreasing.

This information illustrates a four-year flattening of cost increases as CEA migrated functions, associated data, and services from the traditional data center model to the Microsoft Azure™ Cloud. CEA costs follow a typical start-up curve where cost increases are highest while in the development phase. The leveling out of the increases shows that CEA is transitioning from development to an operational phase.

The business drivers associated with the migration from the traditional datacenter to the MS Azure™ cloud are:

- Business Continuity Planning –CEA adopted "work from anywhere" as a business continuity strategy. This strategy required the elimination of CEA's dependency to be able to access its office at 801 K Street. Because cloud services and functions are internet-based, staff could access the tools and data they need to perform their work from anywhere with an internet connection.
- Assure Key CEA Programs & Services Are Available to CEA Business Partners and Stakeholders When Needed – Since earthquakes are unpredictable, CEA is required to provide core functions and services to its stakeholders 24/7. This requires redundancies hosted in multiple locations to prevent a single event from interrupting core functions and services. Cloud technologies provide more location and hosting options than the traditional data center model, which can only offer hosting options at their sites.
- Transfer network hardware risks and maintenance to a third-party – The transfer of network hardware risks and maintenance allow CEA to focus their IT engineering resources on architecture, performance, and security.

CEA's current MS Azure™ spend by function is illustrated in the table below:

Function	% of Total
Core IT Services (security, software, data sharing, communications, etc.)	30.8%
Centralized Policy Processing (CPP – currently 9 PIs)	20.3%
Insurance Data System of Record (EPICenter Data Repository)	9.7%
Earthquake Brace + Bolt System (EBB)	8.6%
Equecat Actuary Modelling Platform (EQE)	5.9%
CEA Premium Quoter	5.9%
Insurance Data Warehouse	5.5%
CEA Geographical Information System (GIS – geographic insurance trending)	4.5%
CEA Website (EQA)	3.4%
CA Department of Insurance – Agent Data Feed and Storage	1.1%
9 other services and functions including Finance, Secure File Transfer, & Ticketing	4.3%
	100%

* The information presented in this memorandum was pulled from CEA tracking data.

b. Updated Budgeting and Cost Tracking

CEA's 2020 budget presented and approved by the Board in December 2019 included $1,100,000 for MS Azure™ costs. This amount includes the costs for the annual commitment and annual reconciliation. Because the Microsoft agreement does not allow for refunds of unused committed dollars, CEA is careful to commit to an annual amount that it is confident it will spend. This process requires an annual reconciliation be performed to determine the amount that CEA has spent in excess to their commitment.

CEA has projected that it will exceed the MS Azure™ commitment for 2020 (ending June 30, 2020) by $170,000 to $200,000. Combined with CEA's $1,100,000 annual commitment through June 30, 2023 (three one year commitments of $1,100,000), CEA will exceed the 2020 MS Azure™ budget amount by up to $200,000. **Because of savings in other areas, CEA will not require a budget augmentation to cover this additional cost**.

MS Azure™ costs are tracked by CEA monthly. Costs are broken down by MS Azure™ services such as virtual machines, data storage, and SQL database and grouped together by CEA systems such as CPP, Earthquake Brace + Bolt, and core IT services. CEA uses this data to:

- Determine the most efficient configuration of MS services to support CEA business
- Determine return on investment (ROI)
- Establish ongoing costs for CEA systems, platforms, and environments

c. Comparative Assessment of Reasonableness of Azure™ Expenditures

CEA compared the MS Azure™ pricing and rates between purchasing directly from Microsoft and purchasing via the State agreement for the services used by CEA and found no significant difference. CEA compared the unit rates it receives from Microsoft to the unit rates listed on the CA Department of Technology's website. CEA's understanding is that Microsoft unit rates are essentially the same for any entity entering into a three-year commitment with Microsoft. The differences are the "extras" that Microsoft provides based upon the commitment amount. For example, once an entity surpasses a certain MS Azure™ commitment amount, additional Microsoft training hours, software licenses, or services may be available for no additional cost. Since the State's commitment to MS Azure™ is larger than CEA's, the State is eligible for "extras" not available to CEA. Therefore, because the unit rates used for billing are essentially the same, the State MS Azure™ agreement provides no substantial benefit to CEA and would increase costs because of the service fee that CEA is required to pay to use the State agreement.

Governing Board Memorandum

11 June 2020

Agenda Item 12: CEA Centralized Policy Processing CPP - Quarterly Update

Recommended Action: No action required—information only

The CEA CPP Portfolio Manager will present the current status of the Centralized Policy Processing (CPP) initiative. Status includes:

Toggle Implementation

- The onboarding of 21st Century Premier Insurance Company (Toggle) is behind schedule. CPP implementation was expected to complete during Q1 2020; however, key required resources within Toggle were pulled away to work on internal projects related to COVID-19 response. Toggle's resources have recently reengaged in the project and the final two tasks to complete the CPP onboarding will wrap up in late June. A new go-live date for Phase 1 implementation is currently under review and is estimated for July 2020.

New CPP Participation

- Both State Farm and Farmers continue moving through the Discovery phase.
  - State Farm is engaged in contract reviews with CEA and onboarding will commence after the execution of contracts.
  - Farmers has requested a Q2 2021 go-live with CPP and is currently reviewing contracts to execute as soon as possible. CEA and Insuresoft are actively engaged in finalizing project details and upon the execution of contracts, the project team will start the project for onboarding.

Ticketing System

- CPP uses a ticketing software to intake requests from participating insurers (PIs) who require assistance with data submissions to CEA. The old ticketing software, Desk.com, was sunset earlier this year and the CPP team took the opportunity to implement a new, more robust platform.
- CPP launched the new ticketing software, ServiceNow, in mid-May. ServiceNow provides automatic workflows, standard and ad-hoc reporting, metrics and provides PIs the ability to submit and monitor help tickets, which was not available with the previous software. The CPP team has received positive feedback from the first group of PIs using the platform. The team will continue to roll out ServiceNow to all CEA PIs over the next 6 to 8 weeks and monitor for opportunities to increase productivity with automation and improved metrics.

CALIFORNIA EARTHQUAKE AUTHORITY
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Governing Board Memorandum

11 June 2020

Agenda Item 13a: Mitigation and Research Program Update

Recommended Action: No action required—information only

CRMP Earthquake Brace + Bolt (EBB) Programs

EBB staff is busy reviewing and approving applications, submitting documentation to FEMA and handling a large volume of calls and emails for the more than 5,700 homeowners that have been accepted into the program.

The CRMP-funded program, with 1,000 grants available, has 552 retrofits completed and 27 in-process.

All permits for the HMGP DR-4308 grant have been filled and approved by FEMA: 918 retrofits have been completed and the remaining 82 are in-process.

EBB began processing applications for the HMGP DR-4344 program in September 2019: 967 retrofits have been completed; 924 are in-process; and there are 4,494 applicants that have been accepted from the 2020 registration that may participate in the program.

Earthquake Brace + Bolt Program (5/20/2020): CRMP and CEA			
Program	**Completed**	**In Progress**	**Status**
2014-2017 EBB	4,285	N/A	Closed
2018 EBB	3,350	N/A	Closed
FEMA Napa EBB	84	N/A	Closed
CRMP 2019 EBB	552	27	984 transfers 0 extensions
FEMA – HMGP DR 4308	918	82	0 extensions
FEMA – HMGP DR 4344	967	924	105 extensions 4,494 accepted
Total	10,156	1,033	105 extensions

Future Funding Opportunities

CRMP continues to look beyond present funding sources—the primary source has been the CEA Earthquake Loss Mitigation Fund—for additional funding sources, including available FEMA HMGP grants.

Current HMGP applications include:

- HMGP DR 4407 (EBB Multi-County) $5M (originally $20M): Currently under FEMA review – expect approval – received RFI (Request for Information) from CalOES on April 23, 2020, submitted response on Monday, May 11, 2020.
- HMGP DR 4431 (EBB Multi-County) $3M: Application submitted January 13, 2020 – under review – received RFI on February 13, 2020 and submitted response on March 10, 2020.
- HMGP DR 4434 (EBB Multi-County) $3M: Application submitted January 13, 2020 – under review – received RFI on February 21, 2020 and submitted response on March 10, 2020.

CEA Brace + Bolt Program

CEA Brace + Bolt Program continues to retrofit policyholders' houses, with more than 614 completed and an additional 127 in progress.

CEA Brace +Bolt Program (05/20/20): CEA BB			
Program	**Completed**	**In Progress**	**Status**
Pilot CEA BB	98	N/A	Closed
2019 CEA BB	516	127	50,281 invited 408 accepted 125 extensions
Total	614	127	N/A

Ongoing Research Projects: Guidelines Development

The ATC 110 earthquake-guidelines-development project, first phase, completed on June 20, 2018. Now called FEMA P-1100, *Vulnerability-Based Seismic Assessment and Retrofit of One- and Two-Family Dwellings*, the bulk publication consists of three volumes:

- Volume 1, Prestandard publication (published October 2019)
- Volume 2, FEMA plan set (published November 2019)
- Volume 3, background documents (completed November 2019)

The second phase of this project consists of developing a training program for contractors, building officials, and engineers. Training outline has been drafted and the program is currently being developed. Estimated to be completed Q3 2020.

The third phase will involve CEA working closely with FEMA and the International Code Council (ICC) to adopt the guidelines as industry standards, which paves the way for adoption into California's building code. Additionally, by creating a uniform seismic-retrofit-design method for homeowners, contractors, and engineers, the new guidelines will help CEA and others (1) establish and expand incentive programs to encourage seismic retrofits, such as that of the California Residential Mitigation Program, and (2) enhance CEA's ability to develop and provide suitable mitigation discounts for CEA-insured homeowners.

CALIFORNIA EARTHQUAKE AUTHORITY
THE STRENGTH TO REBUILD®

Governing Board Memorandum

11 June 2020

Agenda Item 13b: CEA Research Program: Projects

Recommended Action: No action required—information only

Background:
With Governing Board support and approval, CEA launched a new Research Program in 2017. The program provides for three tiers of funding for multiple disciplines of research, all relevant to CEA's mission to provide affordable, accessible earthquake insurance for those who own or rent residences in California.

1. **Grant Program**

Grants for professional and academic development comprise two of the tiers of the grant program. Projects must be related to earthquake studies, regardless of discipline, and meet program specifications for focus areas. The grant recipients will most likely be research specialists, possibly private sector but more likely faculty employed in public and private universities, within and outside California. In addition to generating research to inform CEA in its mission and inform the earthquake community in general, the grants are intended to support and build a new generation of earthquake-science specialists from many disciplines, including graduate students and professionals establishing themselves in the field.

Grant contracts would be made with the university, which distributes grant funds to the ultimate recipient. NOTE: Universities often add substantial overhead costs, reducing net funds to the researcher—this may have impacts on the grant awards.

CEA Research and Legal department staff have collaborated on (draft) program policies and procedures, including best options for contracting with university faculty who may be awarded a CEA grant, and are finding the goal more complex than anticipated.

In addition to the CEA Legal department, input from CEA Finance and Accounting will ensure funding requests and distribution meet audit requirements. As well, clear contracting criteria and a process to administer the contracts and distribute funds must be set before program launch. As a result, the grant program is projected to launch in 2020.

2. Research Projects

A. Cripple-Wall-Performance Effects

CEA contracted with the Pacific Earthquake Engineering Research (PEER) Center in September 2016 to lead CEA's research project, "Quantifying the Performance of Retrofit of Cripple Walls and Sill Anchorage in Single Family Wood-frame Buildings."

Progress to date on the seven project tasks:

1. Literature Review. ***Completed***
2. Analysis of Building Inventory and Defining Representative "Index Buildings." ***Completed***
3. Selecting Ground-Motion Records and Developing Loading Protocols. ***Completed***
4. Experimental Program. ***Completed***
5. Analytical modeling. ***Completed***
6. Loss Model Calibration Framework. ***Completed***
7. Reporting, including regular progress reports. ***Three reports have been received.***

With this project, CEA will have refined scientific data to inform CEA rate levels and premium discounts. Project delayed due to COVID-19, projected completion end of Q3.

B. CEA Damage-Assessment Guidelines

In 2007 CEA provided major funding for the Consortium of Universities for Research in Earthquake Engineering (CUREE), whose work produced the "Assessment and Repair of Earthquake Damage" project—a set of guidelines for "...a sound technical basis for use by engineers, contractors, owners, the insurance industry, building officials, and others in the post-earthquake context. Based on experimental and analytical research and a broad discussion of the issues involved, the guidelines… …facilitate improved consistency in the evaluation of building damage and the associated need for repairs."

The guidelines were last updated in 2010. As part of CEA's funding agreement with CUREE, the guidelines were made available for free PDF download and have been widely distributed as part of the California Department of Insurance-required earthquake training for adjusters.

CUREE disbanded in December 2016, leaving a void in maintaining and updating the guidelines. To ensure guidelines continuity, CEA contracted with Applied Technology Council in May 2018 to update the existing CUREE Guidelines and to develop companion engineering guidelines. ("Damage Assessment and Repair Guidelines for Residential Wood-Frame Buildings. Vol. 1 – General, Vol. 2 – Engineering.")

Final documents have been completed and uploaded to the EarthquakeAuthority.com website. Training materials due June 30, 2020.

3. UCERF3 Analysis:

The UCERF3 model represents a substantial advancement in science. It is also complex, yielding more than 250,000 fault-based ruptures—25 times more than the UCERF2 model.

To deal with the complexity, work is required to identify which of the UCERF3 model's "branches" most influence modeled results.

Although CEA is not legally obligated to advance the scientific understanding of seismic risk in California, staff continues to believe that it is in CEA's best interests to do so, on a voluntary basis. Seismic research underpins many of CEA's actions, such as:

- Developing the structure and cost of innovative insurance products, using the best available science.
- Understanding the amounts of risk-transfer CEA requires to ensure coverage needs and policyholder claims.
- Measuring the effects of risk-reduction features on expected policyholder losses (e.g., to support a more robust hazard-reduction discount).
- Effectively communicating risk to CEA policyholders and other stakeholders.
- Quantifying the anticipated total cost of a damaging earthquake, using the CEA's proprietary EARLE process.

Due to COVID-19, workshop has been postponed until further notice. In the meantime, the team will be gathering feedback virtually and produce a written, proposed plan for UCERF4 – due Q3 2020.

California Earthquake Authority

Losses & Loss Adjustment Expenses (LAE) Paid - Cumulative to April 30, 2020

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	86	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

California Earthquake Authority

Losses & Loss Adjustment Expenses (LAE) Paid - Cumulative to April 30, 2020 (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				3	146,471.18	13,182.41	$159,653.59
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	6	67,989.89	6,119.09	$74,108.98
14470	La Habra	3/28/2014	5.1	1mi S of La Habra, CA	84	458,354.56	41,251.91	$499,606.47
14480	American Canyon	8/24/2014	6.0	4mi NW of American Canyon, CA	196	3,817,733.32	343,596.00	$4,161,329.32
	2014 Minor Quakes				3	18,859.35	1,697.34	$20,556.69
	2015 Minor Quakes				2	5,877.69	529.00	$6,406.69
	2018 Minor Quakes				3	6,058.71	545.28	$6,603.99
19520	Searles Valley	7/4/2019	6.4	SW of Searles Valley, CA	56	968,715.57	87,184.38	$1,055,899.95
19530	Pleasant Hill	10/14/2019	4.7	.7 mi SSE of Pleasant Hill, CA	2	2,700.04	243.01	$2,943.05
	2019 Minor Quakes				2	1,835.35	165.18	$2,000.53
	2020 Minor Quakes				1	1,743.00	156.85	$1,899.85
				Total	**541**	**$9,473,549.87**	**$831,459.22**	**$10,305,009.09**

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.

CEA Project Portfolio

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
✓	✓	!	!	✓	2017-05	Enterprise Resource Planning	Terri Kletzman	Active	02/01/17	02/01/17	50%	12/31/20	
✓	✓	✓	✓	✓	2018-02	EBB Redesign	Jenny Yanez	Active	08/27/18	10/01/19	60%	07/21/20	
✓	✓	✓	✓	✓	2019-01	CPP Ticketing System Implementation	Jill Feather	Active	03/04/19	12/20/19	25%	03/30/20	
✗	✗	✓	✓	✗	2019-02	CEA BB Outreach	Danica Wallin	Closing	07/01/19	07/01/19	80%	04/01/20	

Legend	
●	Project Status is at 0 - 2
●	Project Status is at 3 - 5
●	Project Status is at 6 - 10

CEA GOVERNING BOARD MEETING DATES FOR - 2020

January 30, 2020 – Thursday

~~March 12, 2020 – Thursday~~ (Cancelled)

April 10, 2020 (Added)

June 11, 2020 – Thursday

September 10, 2020 – Thursday

December 10, 2020 – Thursday

CEA ADVISORY PANEL MEETING DATES FOR - 2020

None scheduled at this time

[IMPORTANT NOTE: ***This schedule is for future meetings that have been proposed and approved by the respective bodies named. Meeting dates, times, and locations are subject to change. The final dates, times, and locations will be announced on official Public Notice, issued by the CEA 10 or more days before the date of the meeting. Public Notices are also posted on the CEA Web site www.EarthquakeAuthority.com***]

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