FAD-204 (12/09)

California Department of Insurance

INSURER CLIMATE RISK DISCLOSURE SURVEY
For Calendar Year 2009

Due Date: **May 1, 2010**

Instructions:

i. **Insurers are required to submit the *Climate Risk Disclosure Survey* to the domestic regulator by May 1 each year.** Surveys are intended to be submitted to the domestic regulator of insurer group's lead state (i.e. the regulator overseeing the insurer within the group that reports the largest direct written premium volume.)

ii. Narrative responses are acceptable. Where an insurer's response to other disclosure mechanisms, such as the Carbon Disclosure Project (CDP) or Global Reporting Initiative, explicitly addresses the subject matter of a question in this survey, the insurer may reference and attach their most recent response to that external mechanism in lieu of providing a duplicative response.

iii. Insurers are required to answer all questions in good faith and with meaningful responses. However, there is no requirement to provide information that is immaterial to an assessment of financial soundness (insurers may choose to disclose such information voluntarily, with no implication that such information is in fact material).

iv. Insurers are **not** required to provide quantitative information, provide information that they in good faith believe is commercially sensitive or proprietary, or provide forward-looking information. If an insurer chooses to provide forward-looking information, the insurer may disclaim any responsibility for the accuracy of such forward-looking information. Provided the insurer supplies such information in good faith, it may condition its response with a waiver of any claim under any theory of law based on the inaccuracy of such information.

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INSURER CLIMATE RISK DISCLOSURE SURVEY
For Calendar Year 2009

Due Date: **May 1, 2010**

Company Name:	**California Earthquake Authority**				
NAIC No.	10779	**NAIC Group No.**	0000	**Domiciled State:**	CA
CA Direct Premiums Written	$607,676,744	**Nationwide Direct Premiums Written**	$607,676,744		

Survey Questions	Comparable CDP Questions
General Observations and Statements: • The California Earthquake Authority ("CEA") is not an insurance company. It is a public instrumentality of the State of California that provides residential earthquake insurance pursuant to an express, limited statutory grant of authority; it is not a licensee of the Insurance Commissioner (i.e., it does not hold a certificate of authority). • The CEA is regulated by the Insurance Commissioner through operation of various provisions of what is usually called the "CEA statute." (Please see: California Insurance Code sections 10089.5–10089.54. • CEA insurance is offered by CEA "participating insurers," which are private insurers (and the California FAIR Plan) that are subject to California's statutory mandatory residential-earthquake-insurance offer requirement. The CEA employs no agents and does not underwrite its insurance offerings (although applicants are subject to a few basic eligibility requirements). • The CEA is not a corporation. The CEA has no parent organization or subsidiaries; it is not part of any holding company. The CEA does have a Governing Board, composed solely of public officials, which by law has plenary authority over CEA operations. But because the CEA Board is subject to the Bagley-Keene Open Meeting Act, it does not operate as would a private corporation's board and does not have the prerogatives of such a board. • The CEA operates within leased space on two floors of a 28-story commercial office building; as such, except through provisions of its lease, it does not control the office space or building or leased-space systems (such as delivery of water and electricity, HVAC, and parking facilities). The CEA does not own or operate its own vehicles.	

1. Does the company have a plan to assess, reduce or mitigate its emissions in its operations or organizations? If yes, please summarize. **Answer**: The CEA does not have an express written plan to assess, reduce, or mitigate its emissions in its operations, although there are various parts of the CEA's policies and procedures manual that are intended to support larger efforts to assess, reduce, or mitigate its emissions. For example, the CEA subsidizes public-transportation costs for employees (the CEA office is located adjacent to Regional Transit bus and light-rail stops), the CEA negotiated a special lease provision to allow its employees to park two-wheeled (fuel-efficient) vehicles in the parking garage, and a bicycle locker is available on the premises. Additionally, CEA's travel policies encourage CEA employees and contractors subject to the policies to travel only when necessary, to carpool, and to consolidate trips. The CEA does not own any buildings and does not own or lease automobiles, aircraft, or watercraft. The CEA's landlord is focused on upgrading its LEED accreditation and has sought and obtained CEA's cooperation in that process.	Performance Question 21
2. Does the company have a climate change policy with respect to risk management and investment management? If yes, please summarize. If no, how do you account for climate change in your risk management? **Answer**: With respect to risk management per se, the CEA has not adopted a climate-change policy. As well, the CEA's investment policies currently do not contain a climate-change policy. The CEA uses multiple asset managers located throughout the country in order to mitigate regional risks. By design and as accommodated and encouraged by the CEA statute, the CEA outsources a large number of its basic business functions. During the contractor-procurement and selection process, many factors are inquired into and reviewed, including, but not limited to, contractor's location, geographical risks, and contingency plans.	

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3. Describe your company's process for identifying climate change-related risks and assessing the degree that they could affect your business, including financial implications. **Answer**: The CEA has established data-back-up policies and procedures to ensure that CEA data and financial operations, and the operational functions that flow from those data processes, will continue should climate-change-related threaten or have an impact on the CEA, whether directly or indirectly through impacts on any of its consultants, vendors, or contractors. As stated in the answer to question 2: The CEA outsources many functions. During the contractor selection process many factors are reviewed, including, but not limited to, contractor's location, geographical risks, and contingency plans. The CEA uses multiple asset managers located throughout the country in order to mitigate regional risks. The CEA annually purchases a large amount of reinsurance on the global reinsurance market. Risks associated with climate change could have direct and indirect impacts on the global reinsurance marketplace if reinsurance is used as a financial mechanism to mitigate firms' financial risk. Global reinsurance capacity could be negatively affected and the resulting effect on the CEA could be reduced reinsurance capacity and/or higher reinsurance costs. As part of the process of assessing the amount of reinsurance available to CEA in the global reinsurance marketplace and the costs associated with that reinsurance, the CEA and its professional broker team question reinsurers about all risk factors used to determine, or which may influence, reinsurance rates and capacity. Although the CEA does not run or have access to climate-change risk models, the CEA does depend on the expertise of its reinsurers to properly identify risk, including climate-change risk, as part of the analysis CEA uses to determine capacity in the reinsurance market and to price reinsurance products. To assist the CEA in managing and distributing risk, the CEA has a dynamic financial analysis system, reinsurance guidelines for capacity, and multiple asset managers located throughout the U.S.A.	Risks and Opportunities Questions 1-3

4. Summarize the current or anticipated risks that climate change poses to your company. Explain the ways that these risks could affect your business. Include identification of the geographical areas affected by these risks. **Answer**: The CEA is monoline provider of residential earthquake insurance. CEA knows of no direct impact on its insurance products occasioned by climate change. Other ways that climate change could impact the CEA are described in CEA's response to question 3. Because of the CEA's outsource model of doing business, however, CEA's numerous business "partners" worldwide (consultants, vendors, and contractors) may have climate-change impacts on their businesses, which, in turn, may have impacts on the CEA's business. In its procurement and contracting methods, the CEA is considering plans to ascertain with as much specificity as possible from its business partners such climate-change impacts; CEA policies and procedures would be amended accordingly.	Risks and Opportunities Questions 1-3

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Company Name:	**California Earthquake Authority**				
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CA Direct Premiums Written		**Nationwide Direct Premiums Written**			

5. Has the company considered the impact of climate change on its investment portfolio? Has it altered its investment strategy in response to these considerations? If so, please summarize steps you have taken. **Answer**: The CEA has not formally considered all the impacts of climate changes on its investment portfolio, but as part of developing additional investment compliance criteria and processes, CEA will explore adding climate-related criteria to its investment policies. The CEA does not currently invest in heavy carbon-emitting industries. CEA invested assets are currently in four categories only: U.S. Treasuries (long-term), U.S. Treasuries (short-term), U.S. Treasuries (cash equivalent), and U.S. Government Agencies (cash equivalent).	Risks and Opportunities Question 3: “Other Risks” Question 6: “Other Opportunities”
6. Summarize steps the company has taken to encourage policyholders to reduce the losses caused by climate change- influenced events. **Answer**: California Insurance Code §10089.5 et seq. established the CEA and authorized the CEA to sell basic residential earthquake insurance; the CEA is unaware of direct climate-change impacts on the earthquake peril or on insuring for the earthquake peril. The CEA statute authorizes CEA to provide funding for earthquake-loss mitigation; as part of that program, the CEA has not taken steps to encourage policyholders to reduce the losses caused by climate change-influenced events. CEA participating insurers, on the other hand, which handle or intermediate virtually all contact between CEA and its policyholders, also communicate with all CEA policyholders through those companies’ homeowners-insurance communications—all CEA policyholders, in other words, are also homeowners insurance policyholders of CEA participating	Risks and Opportunities Questions 4-6

insurers. CEA is unaware of how CEA participating insurers handle matter of climate-change awareness with their policyholders, but to the extent they do conduct such communication, CEA policyholders receive equal benefit.	
7. Discuss steps, if any, the company has taken to engage key constituencies on the topic of climate change. **<u>Answer</u>**: The CEA has not taken specific steps to engage key constituencies on the topic of climate change. The CEA believes its response to question 6, above, will provide additional information to this question.	Governance Questions 24, 26, 27
8. Describe actions your company is taking to manage the risks climate change poses to your business including, in general terms, the use of computer modeling. **<u>Answer</u>**: The CEA believes its response to question 3, above, should adequately cover its response to this question 8.	Risks and Opportunities Questions 1-3

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Climate Risk Disclosure Survey Guidance

Discussion

This document offers guidance to insurers responding to the annual mandatory Insurer Climate Risk Disclosure Survey (hereafter referred to as the "Survey"). Those questions contained in this guidance document which are not part of the official set of Survey questions are intended only to guide respondents as they craft their responses to the Survey and are not compulsory.

Guidance Notes

Survey Application and Instructions

i. Response Submissions

Mandatory disclosure will depend on the premium amounts reported for the most immediate prior financial reporting year. If an insurance group reports over **$500,000,000** for **2009**, it must complete the survey and submit it to its domestic regulator on or before **May 1, 2010**. However, if an insurance group reports less that that, it will not be required to complete and file the survey, but it may do so voluntarily. For subsequent financial reporting years, disclosure will be mandatory for all insurance groups with premiums that exceed **$300,000,000** for the most immediate prior financial reporting year.

ii. Quantitative and Forward-Looking Information

Insurers are not required to submit quantitative information but may do so without implying materiality. Insurers are encouraged to provide quantitative information where it offers additional clarity on trends in the intensity or attenuation of natural hazards, insured losses, investment portfolio composition, policyholder risk reduction or improvements in computer modeling. As climate science improves (i.e. when there is greater agreement between observed data and models or when there is integration of catastrophe and climate models), insurers should be able to provide quantitative information with less uncertainty.

Insurers are encouraged but not required to provide forward-looking information that will indicate the risks and opportunities insurers may face in the future; when provided, insurers may disclaim any responsibility for the accuracy of such forward-looking information. Forward- looking information is assumed to have some degree of uncertainty; if provided, insurers should offer explanation on the degree and sources of uncertainty as well as assumptions employed.

iii. Response Required

Insurers in all segments of the industry are required to respond to all eight questions. An insurer may state that a question is not relevant to its business practice, operations or investments. However, if it does so, it must also explain why the question is not relevant.

Survey Questions

<u>Question One</u>***: Does the company have a plan to assess, reduce or mitigate its emissions in its operations or organizations? If yes, please summarize.***

Insurers who are unfamiliar with frameworks for greenhouse gas emission measurement and management are encouraged to review the principles of "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)" developed by the World Resources Institute and the World Business Council for Sustainable Development ("the GHG Protocol").

Each insurer is encouraged to clarify whether its plan for measuring and management of its emissions in operations and/or its subsidiary organizations' operations includes emissions related to energy use for data storage or other computing-intensive processes.[1]

<u>Question Two</u>***: Does the company have a climate change policy with respect to risk management and investment management? If yes, please summarize. If no, how do you account for climate change in your risk management?***

Questions to consider include:

- Where in the structure of the company is climate risk addressed?
- Does the company approach climate change as an Enterprise Risk Management (ERM) issue?
- Does the company have a dedicated point-person or team within the company that is responsible for managing its climate change strategy?
- What is the role of the board of directors in governing climate risk management?
- Does the company consider potentially correlated risks affecting asset management and underwriting?
- Has the company issued a public statement on its climate policy?

<u>Question Three</u>***: Describe your company's process for identifying climate change related risks and assessing the degree that they could affect your business, including financial implications.***

Questions to consider include:

- How may climate change shift customer demand for products?
- What implications may climate change have on liquidity and capital needs?
- How might climate change affect limits, cost and terms of catastrophe reinsurance, including reinstatement provisions?
- Has the insurer considered creative methods of risk distribution such as contingency plans to reduce financial leverage and resolve any liquidity issues in the event of a sudden loss in surplus and cash outflows as a result of a catastrophic event?

[1] Data centers consume more energy than any other area of an organization because they contain both IT equipment and the infrastructure that is needed to cool that equipment. The Environmental Protection Agency found that data centers consumed about 60 billion kilowatt-hours (kWh) in 2006, roughly 1.5 percent of total U.S. electricity consumption. Nancy Faig, Insurance & Technology "The Greening of Data Centers" Mar 07, 2008 URL: http://www.insurancetech.com/showArticle.jhtml?articleID=206902492.

- How are these impacts likely to evolve over time? Does the company have plans to regularly reassess climate change related risks and its responses to those risks?

<u>Question Four</u>***: Summarize the current or anticipated risks that climate change poses to your company. Explain the ways that these risks could affect your business. Include identification of the geographical areas affected by risks.***

Questions to consider include:

- Which business segments or products are most exposed to climate-related risks?
- Has the company considered its potential exposure to climate liability through its D&O or CGL policies?
- Are there geographic locations, perils or coverages for which the company has increased rates, limited sales, or limited or eliminated coverages because of catastrophic events? How do those actions relate to assessments of climate change impacts made by the company?
- Has the company examined the geographic spread of property exposures relative to the expected impacts of climate change, including a review of the controls in place to assure that the insurer is adequately addressing its net exposure to catastrophic risk?

<u>Question Five</u>***: Has the company considered the impact of climate change on its investment portfolio? Has it altered its investment strategy in response to these considerations? If so, please summarize steps you have taken.***

Questions to consider include:

- Does the company consider regulatory, physical, litigation, and competitiveness-related climate risks, among others, when assessing investments?
- Has the company considered the implications of climate change for all of its investment classes, e.g. equities, fixed income, infrastructure, real estate?
- Does the insurer use a shadow price for carbon when considering investments in heavy emitting industries in markets where carbon is either currently regulated or is likely to be regulated in the future?
- Does the insurer factor the physical risks of climate change (water scarcity, extreme events, weather variability) into security analysis or portfolio construction? If so, for what asset classes and issuers (corporate, sovereign, municipal)?
- How does climate change rank compared to other risk drivers, given the insurer's asset liability matching strategy and investment duration?
- Does the insurer have a system in place to manage correlated climate risks between its underwriting and investments?

<u>Question Six</u>***: Summarize steps the company has taken to encourage policyholders to reduce the losses caused by climate change-influenced events.***

Questions to consider include:

- How has the company employed price incentives, new products or financial assistance to promote policyholder loss mitigation? In what lines have these efforts been attempted,

and can the outcome of such efforts be quantified in terms of properties retrofitted, losses avoided, etc.?
- For insurers underwriting D&O, CGL and professional liability policies, what steps has the company taken to educate clients on climate liability risks or to screen potential policyholders based on climate liability risk? How does the company define climate risk for these lines?

Question Seven: ***Discuss steps, if any, the company has taken to engage key constituencies on the topic of climate change.***

Questions to consider include:
- How has the company supported improved research and/or risk analysis on the impacts of climate change?
- What resources has it invested to improve climate awareness among its customers in regulated and unregulated lines?
- What steps has it taken to educate shareholders on potential climate change risks the company faces?

Question Eight: ***Describe actions your company is taking to manage the risks climate change poses to your business including, in general terms, the use of computer modeling.***

Questions to consider include:
- For what perils does the company believe that future trends may deviate substantially from historical trends due to changes in the hazard? Similarly, for what perils, if any, does the company believe that a catastrophe model extrapolating observed trends would be insufficient to plan for maximum possible loss or yearly average loss? What steps has the company taken to model or analyze perils associated with non-stationary hazards?
- Has the company used catastrophe models to conduct hypothetical “stress tests” to determine the implications of a wide range of plausible climate change scenarios? If so, over what timescale, in what geographies and for what perils?
- Has the company conducted, commissioned or participated in scenario modeling for climate trends beyond the 1-5 year timescale? If so, what conclusions did the company reach on the potential implications for insurability under these scenarios?

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Climate Change Resources for Insurers

There are many publications and websites that can provide insurers with a useful overview of the potential impacts of climate change on the insurance sector. The following resource list is not comprehensive but offers a good starting point for insurers seeking more information on the scientific basis of climate change, risks to insurers, catastrophe modeling, public policy, liability, risk management and impacts on insurer investments.

Impacts of Climate Change on the Insurance Sector

Geneva Association, Climate Change and its Economic Impact on Insurance URL: http://www.genevaassociation.org/Home/Climate_Change.aspx.

Insurance Information Institute, Climate Change, Insurance Issues URL: http://www.iii.org/disasters/ClimateChange.

Hecht, Sean. 2008. “Climate Change and the Transformation of Risk: Insurance Matters,” UCLA Law Review, Vol. 55: 1559-1620. URL: http://ssrn.com/abstract=1159853

Mills, Evan. 2008. “From Risk to Opportunity: 2008 Insurer Responses to Climate Change.” URL: http://www.ceres.org/Document.Doc?id=417.

NAIC Climate Change and Global Warming (EX) Task Force. 2008. “The Potential Impact of Climate Change on Insurance Regulation.” URL: http://www.naic.org/store_pub_whitepapers.htm#climate_change.

Ross, C., E. Mills, and S. Hecht. 2007. "Limiting Liability in the Greenhouse: Insurance Risk-Management in the Context of Global Climate Change." Stanford Environmental Law Journal and the Stanford Journal of International Law, Symposium on Climate Change Risk, Vol. 26A/43A:251-334. URL: http://eetd.lbl.gov/EMills/PUBS/PDF/Liability-in-the-Greenhouse.pdf.

Life and Health Insurers and Climate Change

Harvard Medical School, Center for Health and the Global Environment, “Climate Change Futures: Health, Ecological, and Economic Dimensions.” URL: http://chge.med.harvard.edu/programs/ccf/index.html.

Health Canada, “Climate Change: Preparing for the Health Impacts, Health in a Changing Climate.” URL: http://www.hc-sc.gc.ca/sr-sr/pubs/hpr-rpms/bull/2005-climat/2005-climat-5-eng.php.

McGeehin, M. A. and M. Mirabelli. 2001. “The potential impacts of climate variability and change on temperature-related morbidity and mortality in the United States,” Environmental Health Perspectives. May, Vol. 109, Suppl. 2: 185–189. URL: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240665/pdf/ehp109s-000185.pdf

Ebi, Kristie L. and Glenn McGregor. 2008. “Climate Change, Tropospheric Ozone and Particulate Matter, and Health Impacts,” Environmental Health Perspectives. November, Vol. 116, Suppl. 11: 1449–1455. URL: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2592262/

Climate Change Disclosure

World Resources Institute and the World Business Council for Sustainable Development, “The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition).” URL: http://www.ghgprotocol.org/standards/corporate-standard.

Carbon Disclosure Project (“CDP”) URL: http://www.cdproject.net/.

Global Reporting Initiative (“GRI”) URL: http://www.globalreporting.org/Home.

Climate Change Science

Intergovernmental Panel on Climate Change (IPCC). 2007. “Climate Change 2007: The Physical Science Basis.” For a summary of the IPCC’s 2007 reports, see IPCC, “Climate Change 2007: Synthesis Report – Summary for Policymakers,” IPCC**.** URL: http://www.ipcc.ch/ipccreports/ar4-wg1.htm.