

**Cal OES Request for Information (RFI)**  
**Earthquake Early Warning**  
**RFI A221009748**

February 21, 2023

To: INTERESTED PARTICIPANTS

Subject: Request for Information (RFI) - Earthquake Early Warning (EEW) System Solutions for Expanded Warning Capabilities and Automated Responses and Actions to Cal OES Facilities

A. PURPOSE

The California Governor's Office of Emergency Services (Cal OES) California Earthquake Early Warning Program, in coordination with the California Geologic Survey (CGS), is surveying the marketplace for potential vendors that can provide options for considerations for earthquake early warning (EEW) solutions and systems, delivery modes, and/or demonstrations within critical Cal OES facilities, including the State Operations Center (SOC). Cal OES facilities include, but are not limited to:

- Cal OES Headquarters/State Operations Center
  - Address: 3650 Schriever Ave, Mather, CA 95655
- Cal OES Coastal Regional Office
  - Address: 2333 Courage Dr, Fairfield, CA 94533
- Cal OES Southern Regional Office
  - Address: 4671 Liberty Ave, Los Alamitos, CA 90720
- Cal OES Southern Regional Office
  - Address: 6333 Greenwich Drive, San Diego, CA 92122

Additional facilities may be added in the future as necessary.

These applications, products, and/or services would use the [USGS ShakeAlert] signal to expand the use and application of the California Earthquake Early Warning System (CEEWS) throughout Cal OES facilities in two critical areas:

- Alert employees and individuals working in Cal OES facilities to take action to protect themselves with duck, cover, hold on (DCHO) before shaking starts via EEW equipment and systems including, but not limited to:
  - PA systems, intercom, alarms, and speakers
  - ADA message board
  - Handheld two-way radio
  - Voice over Internet Protocol (VoIP)
  - Visible lights, audible alerts, and fire alarm boxes
  - Situational awareness notifications to personnel and facilities

- Take automated protective actions by activating or ceasing critical processes before shaking starts to minimize injuries to people and reduce damage to property and infrastructure including, but not limited to:
  - Open gates
  - Slow and/or stop people-moving devices such as escalators and elevators to the nearest floor
  - Clearing and controlling access points
  - Throttle valves for gas, water, etc.
  - Shut down or turn on industrial systems such as motorized equipment
  - De-energize electrical control panels
  - Monitor pre- and post-earthquake building conditions

These solutions would alert individuals and trigger automatic protective actions to cause life-saving mitigation measures in critical state facilities. EEW will alert employees and individuals to take protective actions prior to an earthquake, as well as trigger automated actions to minimize injuries and reduce damage to the property and infrastructure. Increased focus on automated protective actions will continue due to clear indications from benefit-cost analyses that such actions are highly cost-effective at saving lives and preventing injuries and property loss. This ultimately will also support the continuity of operations throughout an incident.

Cal OES, in partnership with the California Institute of Technology (Caltech), the California Geological Survey (CGS), the University of California (UC), the United States Geological Survey (USGS), and the Alfred E. Alquist Seismic Safety Commission, has expanded and bolstered a network of seismic stations that detects earthquakes to create EEW alerts. Currently, these alerts are delivered statewide to the public through three mobile pathways: the Cal OES-sponsored MyShake app, Wireless Emergency Alerts (WEA), and to Android-enabled devices. As Cal OES and their scientific partners approach the completion of the seismic sensor/station build-out, automated protective actions are being explored that would enhance the resiliency of all types of infrastructure within California after an alert is received.

As a result, Cal OES would like to invite creative, forward-thinking Respondents to submit information for innovative EEW solutions that focus on public alerting and automated protective actions within Cal OES facilities. The proposed EEW solution should incorporate the following attributes to the highest extent possible:

- Provide a description of the potential benefits (quantitatively and/or qualitatively), whether it is applicable for public alerting and/or automated protective actions, as well as the scalability of the equipment, application, and/or services.
- Indicate if the proposed EEW solution has been used in other applications and/or settings, industries, and organizations. If so, provide results and examples including system details, location(s), impacts and outcomes, challenges, issues, etc. Provide contact information and/or referrals to current or former clients.
- Describe if the proposed solution accommodates individuals with access and functional needs.

- Describe cost estimates for equipment, application, and/or services including associated costs for initial installation and labor, training, monitoring and testing, operation and maintenance, and equipment replacement.
- Provide details regarding timeframes to implement and install proposed solutions, and any expected limitations, challenges, and/or delays.
- Describe any additional initial, general, and/or annual costs.
- Provide details regarding the ability to contract and/or sub-contract out the installation of solutions (exhibits accessibility and scalability, while reducing costs).

Potential vendors who have the ability to provide services to meet the State of California's need for EEW solutions, should respond to this RFI by email to [saagar.patel@caloes.ca.gov](mailto:saagar.patel@caloes.ca.gov) by March 10, 2023. Please submit your response in no more than 10 pages.

For additional information regarding the early warning system, statewide sensor network, and earthquake preparedness, visit Earthquake Warning California at <https://earthquake.ca.gov/>. Questions or comments regarding this notice may be addressed electronically to Cal OES at [megan.sullivan@caloes.ca.gov](mailto:megan.sullivan@caloes.ca.gov). Phone calls will not be accepted or returned.

IMPORTANT INFORMATION- PLEASE READ BEFORE RESPONDING TO THIS RFI.

- 1) This is strictly a survey and not a request for proposals. The State of California is not obligated to and will not pay for any information received from industry sources as a result of this Request for Information.
- 2) The State has no obligation to buy or issue a solicitation to any Respondent as a result of this RFI.
- 3) Information provided in response to this RFI related to any costing should be estimated pricing only, to be used by Cal OES for information and planning purposes, and understood by the Respondent and Cal OES not to be represented as a bid from Respondent.
- 4) If this RFI results in a future contract, bidders will have to agree to the following State terms and conditions and applicable contractor certifications clauses:  
<http://www.dgs.ca.gov/ols/Resources/StandardContractLanguage.aspx>
- 5) The State does not request any proprietary information be submitted, nor shall it be liable for any consequential damages for proprietary information if submitted. Any information submitted in response to this Request for Information is subject to disclosure under the Freedom of Information Act, 5 USC 552 (a) and the California Public Records Act.
- 6) Cal OES may, at its sole discretion, choose to not consider or evaluate any response, or any portion of a response, received as a result of this RFI.

## B. SCOPE

Cal OES requests that Respondents provide a cover page for their response that includes the following: company name, company mailing address, and point of contact information (name, telephone number, and email address). The cover page should also provide a brief description of the Respondent's technical capability to deliver the aforementioned services, describe any past experience with similar requirements along with the contract type/pricing methodology, and the vendor's ability to manage, as prime contractor, the types and magnitude of services required.

In addition to the cover page, please provide detailed and specific responses to the following questions:

- How the proposed solution addresses, reduces, and minimizes impacts from earthquakes?
- How much does equipment (applications, products, and/or services) and installation cost?
- How long will it take to produce and install? Is this scalable?
- What is the cost of installing the associated solutions?
- What is your production capability? If applicable, specifically, how many units can you produce per week/month?
- What are the logistical requirements? Does it have special water, sewer, or electrical requirements? Are there any special permits or permissions required? Do you have experience working with an emergency operations center?
- What are the dimensions of the product(s)? Is it possible to make the product and/or service access and functional needs accessible?
- Please submit any relevant production use cases, successes, fact sheets and information.