

EERI Policy Statement

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Implement an Effective Earthquake Early Warning System

Adoption date by EERI Board of Directors: December 7, 2018

EERI Policy Position

A comprehensive Earthquake Early Warning (EEW) system should be developed and deployed in areas of high earthquake risk in the United States. EEW can save lives and reduce property damage but requires an urgent, substantial and long-term commitment and investment in the scientific basis, physical infrastructure, information technology, delivery systems and user training to support its widest possible beneficial and equitable use.

Background

Earthquakes are a significant threat to the people, infrastructure and economy of the United States. About half of the US population lives in zones of moderate to high earthquake risk, from the West Coast, Alaska and Hawaii to the Midwest and East Coast. In our nation's history, quakes have resulted in loss of life, injury, property damage, and economic losses in the billions. Annual expected loss to the nation from building damage alone is estimated at \$6.1 billion per year, on par with the level of losses from floods and hurricanes.

Needed Actions

To reduce earthquake losses, EERI advocates building on the US's current EEW capabilities to create a comprehensive, end-to-end system that integrates efforts at the federal, state and local level, across sectors, and among the many disciplines necessary to ensure an effective system. To achieve this, the following important and urgent steps need to be taken:

- 1. Increase investment in the scientific infrastructure for the detection and analysis of ground movement.
- 2. Increase investment and coordination among the social- and operational- behavior, human-technology interaction, ergonomics, information technology, and engineering research to support creation of effective message formats, content, delivery modes and procedures.
- 3. Build the communications infrastructure necessary to deliver fast, reliable EEW information.
- 4. Involve, educate and train users on what to do.
- 5. Lay an inclusive, clear, and durable foundation for the system in terms of governance, funding, policy and legal structure.
- 6. Encourage sustained scientific and international partnerships for shared learning.