

Western States Seismic Policy Council
2013 Awards in Excellence
Overall Award in Excellence for Innovations

Administering Agency:	Pacific Earthquake Engineering Research Center (PEER)
Program Name:	Tall Buildings Initiative
Contact:	Jack Moehle
Address:	325 Davis Hall MC 1792 Berkeley, CA 94720
Telephone:	510-642-3437
Website:	<i>peer.berkeley.edu</i>

Program Summary

In response to the surge of new and proposed tall buildings in regions of high seismicity and the lack of specific building code requirements that apply to them, the Tall Buildings Initiative coordinated funds and volunteer resources from several organizations to develop recommended design criteria that will help ensure that future, new tall buildings are safe and usable following earthquakes. The initiative was an extraordinary undertaking during particularly challenging economic times in both the building industry and academia, and involved collaboration across multiple disciplines including seismologists, geotechnical engineers, structural engineers, sociologists, architects, cost estimators, government regulators, building owners and occupants; Pacific Earthquake Engineering Center provided team management.

Many new tall buildings use innovative structural and architectural systems and high performance materials to meet earthquake performance criteria. However, prior to the Tall Buildings Initiative Guidelines published in November 2010, there were significant differences in alternatives to the Building Code that were published by the City and County of San Francisco and the Los Angeles Tall Buildings Structural Design Council. Before the Tall Buildings Initiative, there were no studies that systematically evaluated the different approaches to Performance-Based Earthquake Engineering, nor did comparisons with minimal code-based analysis and design approaches exist. The Tall Buildings Initiative generated key parametric studies and applied many earthquake simulations that now serve as the basis for its Guidelines for Performance-based Seismic Design. The guidelines can be found at : <http://peer.berkeley.edu/tbi/>