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Measuring Destruction and Recuperation at Oregon's Critical Energy
Infrastructure Hub

Portland has become a hot spot for geological discussions over the last few years. The overdue Cascadia Subduction Zone quake is the elephant in the room.

Cascadia is a catastrophic natural event where the Juan De Fuca plate and the North American plate subduct off the Pacific coast, causing a massive earthquake affecting millions of lives and costing even more. Tsunamis, mudslides, liquefaction, infrastructure collapse and utility explosions are expected to affect millions of people, cutting off lifelines, making a coordinated response nearly impossible.

What is the fate of the natural gas pipeline system at the Critical Energy Infrastructure Hub (CEIH) in Northwest Portland--sitting on a man-made island, on the Willamette River, next to the country's largest urban park, flanked by residential neighborhoods, with no retrofits planned?

Only those arms of the military and federal government that can access the Portland Metro Area will be able to assist. Ninety percent of Oregon's natural gas and 100% of the Portland International Airport's fuel is housed at the Hub.

How much liquid natural gas will be lost if the CEIH is destroyed? How long to build back regional stores? A model must be developed to give us the best calculations to prepare.

Currently, there's no model that exists that can equate for all of the following: damages to pipes, restoration and disruption, and maximum thresholds for utility usage. The models and plans discussed within this poster may cast a needed spotlight for establishing a new model for utility recuperation.