

Proposal Title: Statewide California Seismic Hazard Model Development

Year 1		Total number of node-hours for Year 1: 537,500	
Milestone:	Details (as appropriate):	Dates:	Status: (renewals only)
M1. Generation and Validation of a SCEC Multi-scale Community Velocity Model	Resource: Frontier Node-hours: 75,000 Production size runs (number of nodes): 1,000 Filesystem storage (TB and dates): 88 Archival storage (TB and dates): 88 Software Application: AWP-ODC-DM Tasks: Dependencies:	Q1-2 2025	
M2: Evaluation of community velocity models	Resource: Frontier Node-hours: 150,000 Production size runs (number of nodes): 625 Filesystem storage (TB and dates): 30 Archival storage (TB and dates): 1 Software Application: SW4 Tasks: Dependencies:	Q3 2025	
M3: California Scenario Simulations using Multi-surface Linear Wave Propagation Model	Resource: Frontier Node-hours: 150,000 Production size runs (number of nodes): 2500 Filesystem storage (TB and dates): 84 Archival storage (TB and dates): 84 Software Application: AWP-ODC-Iwan Tasks: Dependencies:	Q1-2 2025	
M4a. Verification Exercise: Deterministic California Earthquake Simulations with Topography (using SeisSol)	Resource: Frontier Node-hours: 50,000 Production size runs (number of nodes): 1500 Filesystem storage (TB and dates): 10 Archival storage (TB and dates): 10 Software Application: SeisSol Tasks: Dependencies:	Q1-2 2025	
M4b. Verification Exercise: Deterministic California	Resource: Frontier Node-hours: 17,500	Q1-2 2025	

Earthquake Simulations with Topography (using AWP-ODC-DM with Topo)	Production size runs (number of nodes): 1500 Filesystem storage (TB and dates): 12 Archival storage (TB and dates): 12 Software Application: AWP-ODC-DM Tasks: Dependencies:		
M4c. Verification Exercise: Deterministic California Earthquake Simulations with Topography (using SW4)	Resource: Frontier Node-hours: 50,000 Production size runs (number of nodes): 1500 Filesystem storage (TB and dates): 20 Archival storage (TB and dates): 5 Software Application: SW4 Tasks: Dependencies:	Q1-2 2025	
M5: Machine-learning reduced-order modeling	Resource: Frontier Node-hours: 100,000 Production size runs (number of nodes): 100 Filesystem storage (TB and dates): 55 Archival storage (TB and dates): 55 Software Application: SW4 Tasks: Dependencies:	Q1-4 2025	
M6: CyberShake 2Hz deterministic PSHA	Resource: Frontier Node-hours: 20,000 Production size runs (number of nodes): 250 Filesystem storage (TB and dates): 250 Archival storage (TB and dates): 10 Software Application: AWP-ODC-Topo-SGT Tasks: 3 simulations per site x 50 sites = 150 simulations Dependencies: AWP-ODC-DM modified to output SGTs and passes tests	Q3 2025	