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115TH CONGRESS
1ST SESSION

H. R. 654

[Report No. 115-]

To direct the Administrator of the Federal Emergency Management Agency to carry out a plan for the purchase and installation of an earthquake early warning system for the Cascadia Subduction Zone, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 24, 2017

Mr. DEFAZIO introduced the following bill; which was referred to the Committee on Transportation and Infrastructure

MARCH --, 2017

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italics]

[For text of introduced bill, see copy of bill as introduced on January 24, 2017]

A BILL

To direct the Administrator of the Federal Emergency Management Agency to carry out a plan for the purchase and installation of an earthquake early warning system for the Cascadia Subduction Zone, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; DEFINITION.**

4 (a) *SHORT TITLE.*—*This Act may be cited as the “Pa-*
5 *cific Northwest Earthquake Preparedness Act of 2017”.*

6 (b) *CASCADIA SUBDUCTION ZONE DEFINED.*—*In this*
7 *Act, the term “Cascadia Subduction Zone” means the land-*
8 *ward-dipping fault that is approximately 684 miles long,*
9 *separates the Juan de Fuca and North America plates, and*
10 *stretches along a portion of the western coast of the United*
11 *States beginning off Cape Mendocino, California, along the*
12 *State of Oregon, the State of Washington, to Northern Van-*
13 *couver Island, British Columbia.*

14 **SEC. 2. EARTHQUAKE EARLY WARNING SYSTEM FOR**
15 **CASCADIA SUBDUCTION ZONE.**

16 (a) *PLAN FOR PURCHASE AND INSTALLATION.*—

17 (1) *DEVELOPMENT AND FUNDING.*—*The Admin-*
18 *istrator of the Federal Emergency Management Agen-*
19 *cy shall—*

20 (A) *develop a plan for the purchase and in-*
21 *stallation of an earthquake early warning system*
22 *for the Cascadia Subduction Zone; and*

23 (B) *identify the funds necessary for imple-*
24 *mentation of the plan.*

1 (2) *SUBMISSION TO CONGRESS.*—Not later than
2 90 days after the date of enactment of this Act, the
3 Administrator shall submit to the appropriate com-
4 mittees of Congress a copy of the plan.

5 (b) *REPORT TO CONGRESS.*—Not later than 1 year
6 after the date of enactment of this Act, the Administrator
7 shall submit to the appropriate committees of Congress a
8 report that summarizes the actions taken to implement the
9 plan.

10 (c) *DEFINITIONS.*—In this section, the following defi-
11 nitions apply:

12 (1) *APPROPRIATE COMMITTEES OF CONGRESS.*—
13 The term “appropriate committees of Congress”
14 means the Committee on Transportation and Infra-
15 structure of the House of Representatives and the
16 Committee on Homeland Security and Governmental
17 Affairs of the Senate.

18 (2) *EARTHQUAKE EARLY WARNING SYSTEM.*—
19 The term “earthquake early warning system” in-
20 cludes—

21 (A) improvements to regional and geodetic
22 networks that support building a capability for
23 an earthquake early warning system; and

24 (B) seismometers, Global Positioning Sys-
25 tem receivers, and associated infrastructure.

1 **SEC. 3. EARTHQUAKE AND TSUNAMI TASK FORCE.**

2 (a) *IN GENERAL.*—*The President shall establish an*
3 *Earthquake and Tsunami Task Force for the purpose of de-*
4 *veloping a comprehensive strategy and recommendations on*
5 *how the Nation should prepare and plan for, mitigate*
6 *against, respond to, recover from, and more successfully*
7 *adapt to a covered event in the Cascadia Subduction Zone.*

8 (b) *TASK FORCE.*—

9 (1) *MEMBERSHIP.*—*The membership of the Task*
10 *Force shall include a cross section of subject matter*
11 *experts representing the following:*

12 (A) *Relevant Federal agencies.*

13 (B) *The States of Oregon, Washington, and*
14 *California.*

15 (C) *Indian tribes, local governments, and*
16 *private sector representatives that may be im-*
17 *pacted by a covered event in the Cascadia*
18 *Subduction Zone.*

19 (D) *Universities, academia, and research*
20 *institutions with expertise in topics relevant to*
21 *the work of the Task Force.*

22 (2) *CHAIRPERSON.*—*The Administrator (or the*
23 *Administrator’s designee) shall serve as the chair-*
24 *person of the Task Force.*

25 (3) *DETAILED EMPLOYEES.*—*Members of the*
26 *Task Force may detail employees to assist the Admin-*

1 *istrator (or the Administrator's designee) in fulfilling*
2 *the responsibilities of the Task Force.*

3 *(c) COMPREHENSIVE STRATEGY.—*

4 *(1) STRATEGY.—The comprehensive strategy to*
5 *be developed under subsection (a) shall include the fol-*
6 *lowing:*

7 *(A) A description of how Federal agencies*
8 *will coordinate to develop the ability to prepare*
9 *and plan for, mitigate against, respond to, re-*
10 *cover from, and more successfully adapt to the*
11 *impacts of a covered event in the Cascadia*
12 *Subduction Zone.*

13 *(B) A strategy to ensure collaboration be-*
14 *tween the Department of Transportation, the De-*
15 *partment of Energy, the Coast Guard, the Corps*
16 *of Engineers, and other Federal agencies, as ap-*
17 *propriate, for purposes of—*

18 *(i) completing a needs assessment of*
19 *Federal facilities in need of hardening for a*
20 *covered event; and*

21 *(ii) developing a strategic plan to*
22 *mitigate and retrofit Federal, State, tribal,*
23 *and local critical assets for freight, energy,*
24 *and transit purposes to withstand a covered*

1 *event and to help save lives during and im-*
2 *mediately after a covered event.*

3 *(C) A strategy—*

4 *(i) to assist State, tribal, and local*
5 *governments in developing and imple-*
6 *menting a coordinated and comprehensive*
7 *plan to prioritize Federal, State, tribal,*
8 *local, and private investments and activities*
9 *to develop the ability to prepare and plan*
10 *for, mitigate against, respond to, recover*
11 *from, and more successfully adapt to the*
12 *impacts of a covered event in the Cascadia*
13 *Subduction Zone; and*

14 *(ii) to link any existing statewide*
15 *mitigation plan with such a coordinated*
16 *and comprehensive plan.*

17 *(D) With respect to the strategy described in*
18 *subparagraph (C), an examination of the feasi-*
19 *bility of the public sector, the private sector, and*
20 *individuals to acquire earthquake insurance.*

21 *(E) An identification of funding opportuni-*
22 *ties to implement the comprehensive strategy and*
23 *any recommendations made by the Task Force,*
24 *including—*

1 (i) existing funding opportunities
2 across Federal agencies and other sources;
3 and

4 (ii) potential new funding opportuni-
5 ties.

6 (F) An identification of barriers to obtain-
7 ing funding for the implementation of the com-
8 prehensive strategy and recommendations on
9 how to remove the barriers.

10 (G) A strategy for appropriate Federal
11 agencies to collaborate with and assist State,
12 tribal, and local governments in developing rec-
13 ommendations for cost-effective mitigation alter-
14 natives for aging State, tribal, and locally owned
15 critical infrastructure.

16 (H) A strategy for assisting State, tribal,
17 and local governments in developing a recovery
18 plan prior to a covered event in the Cascadia
19 Subduction Zone that addresses how State, trib-
20 al, and local governments may want to rebuild
21 after the event.

22 (I) An identification of the steps taken to
23 date to develop an onshore and offshore earth-
24 quake early warning system and a description of
25 the purpose and scope of such a system.

1 *(J) An evaluation of the types of offshore*
2 *earthquake early warning systems and rec-*
3 *ommendations and a cost estimate for an earth-*
4 *quake early warning system appropriate for the*
5 *Cascadia Subduction Zone.*

6 *(K) Recommendations on how an earth-*
7 *quake early warning system should operate, in-*
8 *cluding whether and how the system should*
9 *interface with the private sector.*

10 *(L) A description of appropriate roles and*
11 *responsibilities for Federal, State, local, and*
12 *tribal governments, including who should operate*
13 *and maintain an earthquake early warning sys-*
14 *tem, the cost of the system, and possible funding*
15 *sources for the system.*

16 *(M) A plan on how to integrate an earth-*
17 *quake early warning system into existing and*
18 *new public alert warning systems and tech-*
19 *nologies, including mobile systems.*

20 *(2) USE OF EXISTING PLANS.—In developing the*
21 *comprehensive strategy, the Task Force may use exist-*
22 *ing plans, studies, and other resources.*

23 *(d) RECOMMENDATIONS.—The recommendations to be*
24 *developed by the Task Force under subsection (a) shall in-*
25 *clude recommendations on—*

1 (1) *potential administrative or legislative*
2 *changes required to implement the comprehensive*
3 *strategy;*

4 (2) *the funding required to implement the com-*
5 *prehensive strategy and the recommendations; and*

6 (3) *the order of priority for implementation of*
7 *the comprehensive strategy.*

8 (e) *NATIONAL ACADEMIES.*—

9 (1) *COLLABORATION.*—*The Task Force shall*
10 *work simultaneously and collaboratively with the Na-*
11 *tional Academies.*

12 (2) *AGREEMENT.*—*The Task Force shall enter*
13 *into an agreement with the National Academies under*
14 *which the National Academies shall develop rec-*
15 *ommendations for a Federal research strategy to ad-*
16 *vance scientific understanding of a Cascadia*
17 *Subduction Zone earthquake and resulting tsunami*
18 *preparedness, including the following:*

19 (A) *Geologic conditions, ground motions,*
20 *and tsunami hazards.*

21 (B) *Implications of an effective automated*
22 *early warning system.*

23 (C) *Effects of mega-earthquake and tsunami*
24 *events on the built and natural environment.*

1 (D) *Social and behavioral factors for effective*
2 *disaster preparedness and response.*

3 (E) *Cost-effective mitigation alternatives for*
4 *legacy and aging infrastructure.*

5 (F) *Strategic planning for freight, energy,*
6 *and transit network robustness.*

7 (G) *Tools that help communities invest*
8 *their resources for the greatest benefit.*

9 (H) *Any other topics identified as necessary*
10 *by the Task Force or the National Academies.*

11 (f) *REPORT.—Not later than 18 months after the date*
12 *of enactment of this Act, the Administrator shall submit*
13 *to the Committee on Transportation and Infrastructure of*
14 *the House of Representatives and the Committee on Home-*
15 *land Security and Governmental Affairs of the Senate a*
16 *report of the Task Force that includes the following:*

17 (1) *The comprehensive strategy to be developed*
18 *under subsection (a).*

19 (2) *The recommendations to be developed under*
20 *subsections (a), (d), and (e).*

21 (g) *DEFINITIONS.—In this section, the following defi-*
22 *initions apply:*

23 (1) *ADMINISTRATOR.—The term “Adminis-*
24 *trator” means the Administrator of the Federal*
25 *Emergency Management Agency.*

1 (2) *COVERED EVENT.*—*The term “covered event”*
2 *means an earthquake, tsunami, or combined earth-*
3 *quake and tsunami event.*

4 (3) *TASK FORCE.*—*The term “Task Force”*
5 *means the Federal interagency task force to be estab-*
6 *lished under subsection (a).*

7 **SEC. 4. NATIONAL PREPARATION AND RESPONSE EFFORTS**
8 **RELATING TO EARTHQUAKES AND TSUNAMIS.**

9 *The Administrator of the Federal Emergency Manage-*
10 *ment Agency shall be responsible for the Nation’s efforts to*
11 *reduce the loss of life and property, and to protect the Na-*
12 *tion, from an earthquake, tsunami, or combined earthquake*
13 *and tsunami event by developing the ability to prepare and*
14 *plan for, mitigate against, respond to, recover from, and*
15 *more successfully adapt to such an event.*

16 **SEC. 5. ADDITIONAL HAZARD MITIGATION ACTIVITIES.**

17 *Section 404 of the Robert T. Stafford Disaster Relief*
18 *and Emergency Assistance Act (42 U.S.C. 5170c) is amend-*
19 *ed by adding at the end the following:*

20 “(f) *USE OF ASSISTANCE.*—*Recipients of hazard miti-*
21 *gation assistance provided under this section and section*
22 *203 may use the assistance to conduct activities to help re-*
23 *duce the risk of future damage, hardship, loss, or suffering*
24 *in any area affected by earthquake hazards, including—*

1 “(1) improvements to regional seismic networks
2 in support of building a capability for earthquake
3 early warning;

4 “(2) improvements to geodetic networks in sup-
5 port of building a capability for earthquake early
6 warning; and

7 “(3) improvements to seismometers, Global Posi-
8 tioning System receivers, and associated infrastruc-
9 ture in support of building a capability for earth-
10 quake early warning.”.