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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

KELSEY CASCADIA ROSE JULIANA; **XIUHTEZCATL TONATIUH M.**, through his Guardian Tamara Roske-Martinez; et al.,

Plaintiffs,

v.

The UNITED STATES OF AMERICA; DONALD TRUMP, in his official capacity as President of the United States; et al.,

Defendants.

Case No.: 6:15-cv-01517-TC

DECLARATION OF JAMES E. HANSEN in Support of Plaintiffs' Response in Opposition to Defendants' Motion for Summary Judgment

- I, Dr. James E. Hansen, hereby declare and if called upon would testify as follows:
- 1. I have been retained as an expert on behalf of Plaintiffs in this matter.
- 2. I have prepared an expert report for this litigation ("Expert Report"), a true and correct copy of which is attached hereto as **Exhibit 1**, which includes Exhibits A through D to my Expert Report. My Expert Report is signed by me. A copy of my Expert Report was served on Defendants on April 13, 2018, except for Exhibits L-R, T, and V to my Expert Report, which contained confidential information of Plaintiffs and were served, subject to the Protective Order, on June 15, 2018.
 - a. Attached as **Exhibit 2** to this Declaration is Exhibit E to my Expert Report, true and correct copies of Maps of Projected Sea Level Rise in Rayne, Louisiana.
 - b. Attached as **Exhibit 3** to this Declaration is Exhibit F to my Expert Report, true and correct copies of Maps of Projected Sea Level Rise in Satellite Beach, Florida.
 - c. Attached as **Exhibit 4** to this Declaration is Exhibit G to my Expert Report, true and correct copies of Maps of Projected Sea Level Rise in Yachats, Oregon.
 - d. Attached as **Exhibit 5** to this Declaration is Exhibit H to my Expert Report, true and correct copies of Maps of Projected Sea Level Rise in Seattle, Washington.
 - e. Attached as **Exhibit 6** to this Declaration is Exhibit I to my Expert Report, true and correct copies of Maps of Projected Sea Level Rise in Kauai, Hawaii.
 - f. Attached as **Exhibit 7** to this Declaration is Exhibit J to my Expert Report, true and correct copies of Maps of Projected Sea Level Rise in New York City, New York.
 - g. Attached as **Exhibit 8** to this Declaration is Exhibit K to my Expert Report, true and correct copies of Maps of Projected Sea Level Rise in Manzanita, Oregon.

- h. Attached as **Exhibit 9** to this Declaration is Exhibit S to my Expert Report, a true and correct copy of a graphic combining the Keeling Curve with the Callendar Curve, depicting increased atmospheric carbon dioxide from 1870 to 2017.
- i. Attached as <u>Exhibit 10</u> to this Declaration is Exhibit U to my Expert Report, a true and correct copy of an animated movie produced by National Oceanic and Atmospheric Administration, depicting global atmospheric carbon dioxide measurements at various locations from 1979–2016, followed by a comparison to historical levels. This Exhibit will be filed in hard copy with the Court.
- j. Attached as **Exhibit 11** to this Declaration is Exhibit W to my Expert Report, a true and correct copy of *Worlds in the Making* by Svante Arrhenius (1908).
- k. Attached as **Exhibit 12** to this Declaration is Exhibit X to my Expert Report, a true and correct copy of *The Artificial Production of Carbon Dioxide and Its Influence on Temperature* by G. S. Callendar (1938).
- l. Attached as **Exhibit 13** to this Declaration is Exhibit Y to my Expert Report, a true and correct copy of *Can Carbon Dioxide Influence Climate?* by G. S. Callendar (1949).
- m. Attached as **Exhibit 14** to this Declaration is Exhibit Z to my Expert Report, a true and correct copy of *The Carbon Dioxide Theory of Climatic Change* by Gilbert N. Plass (1955).
- n. Attached as **Exhibit 15** to this Declaration is Exhibit AA to my Expert Report, a true and correct copy of *Carbon Dioxide Exchange Between Atmosphere and Ocean and the Question of an Increase of Atmospheric CO₂ During the Past Decades by Roger Revelle and Hans E. Suess (1957).*

- o. Attached as **Exhibit 16** to this Declaration is Exhibit BB to my Expert Report, a true and correct copy of testimony by the National Science Foundation entitled *Report on International Geophysical Year* delivered to the Eighty-fifth Congress's House Subcommittee of the Committee on Appropriations (1957).
- p. Attached as **Exhibit 17** to this Declaration is Exhibit CC to my Expert Report, a true and correct copy of *Restoring the Quality of Our Environment* by the Environmental Pollution Panel of the President's Science Advisory Committee (1965).
- q. Attached as **Exhibit 18** to this Declaration is Exhibit DD to my Expert Report, a true and correct copy of *Energy and Climate* by the National Academy of Sciences (1977).
- r. Attached as **Exhibit 19** to this Declaration is Exhibit EE to my Expert Report, a true and correct copy of *Carbon Dioxide and Climate: A Scientific Assessment* by the Climate Research Board of the National Research Council (1979).
- s. Attached as **Exhibit 20** to this Declaration is Exhibit FF to my Expert Report, a true and correct copy of *Climate Impact of Increasing Atmospheric Carbon Dioxide* (1982) authored by myself and others.
- t. Attached as **Exhibit 21** to this Declaration is Exhibit GG to my Expert Report, a true and correct copy of my testimony entitled *Carbon Dioxide and Climate: The Greenhouse Effect*, delivered on March 25, 1982 before Subcommittees of the House Committee on Science and Technology.
- u. Attached as **Exhibit 22** to this Declaration is Exhibit HH to my Expert Report, a true and correct copy of Exxon Research and Engineering Company President Dr. E. E.

- David, Jr.'s remarks at the Fourth Annual Ewing Symposium on October 26, 1982 entitled *Inventing the Future: Energy and the CO*₂ "Greenhouse" Effect.
- v. Attached as **Exhibit 23** to this Declaration is Exhibit II to my Expert Report, a true and correct copy of my testimony entitled *Greenhouse Effect and Global Climate Change* delivered on June 23, 1988 before the Senate Committee on Energy and Natural Resources.
- w. Attached as **Exhibit 24** to this Declaration is Exhibit JJ to my Expert Report, a true and correct copy of a transcript of Senate proceedings in the Congressional Record from May 9, 1989.
- x. Attached as **Exhibit 25** to this Declaration is Exhibit KK to my Expert Report, a true and correct copy of data of historic CO₂ levels that was obtained on my behalf from the National Oceanic and Atmospheric Administration.
- y. Exhibits L–R, T, and V to my Expert Report, which contain confidential materials about Plaintiffs and are to be filed under seal pursuant to the Protective Order in this case, ECF No. 221, are attached as **Exhibits 26–34** to this Declaration.
 - Attached as <u>Exhibit 26</u> to this Declaration is Exhibit V to my Expert Report, filed under seal with the Court.
 - ii. Attached as <u>Exhibit 27</u> to this Declaration is Exhibit L to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.
 - iii. Attached as <u>Exhibit 28</u> to this Declaration is Exhibit M to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.

- iv. Attached as **Exhibit 29** to this Declaration is Exhibit N to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.
- v. Attached as **Exhibit 30** to this Declaration is Exhibit O to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.
- vi. Attached as **Exhibit 31** to this Declaration is Exhibit P to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.
- vii. Attached as **Exhibit 32** to this Declaration is Exhibit Q to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.
- viii. Attached as **Exhibit 33** to this Declaration is Exhibit R to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.
 - ix. Attached as **Exhibit 34** to this Declaration is Exhibit T to my Expert Report, filed under seal with the Court. This Exhibit will be filed in hard copy with the Court.

3. My Expert Report contains:

- a. a complete statement of all opinions I will express at trial and the basis and reasons for these opinions;
- b. the facts or data considered by me in forming my opinions;
- c. any exhibits that I currently plan to use to summarize or support my opinions;

- d. my qualifications, including a list of all publications authored by me in the previous
 10 years;
- e. a list of all other cases in which, during the previous 4 years, I testified as an expert at trial or by deposition, if any; and
- f. a statement of the compensation to be paid for the study and testimony in the case.
- 4. If called to testify in this matter, I would provide testimony as described in the attached Expert Report.

In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

DATED this 27th day of June, 2018.

Respectfully submitted,

James & Hansen

James E. Hansen