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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; et al.,

Defendants.

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

DECLARATION OF JOSEPH E. STIGLITZ, Ph.D, in Support of Plaintiffs' Opposition to Defendants' Motion for a Stay Pending a Petition for a Writ of Mandamus

- I, Dr. Joseph E. Stiglitz, hereby declare and if called upon would testify as follows:
 - 1. I am a University Professor at Columbia University with joint appointments in the Faculty of Arts and Sciences (Department of Economics), the Graduate School of Business (Department of Finance), and the School of International and Public Affairs. I have been retained as an expert on behalf of Plaintiffs. I serve as an expert in this case entirely *pro bono*. I have personal knowledge of the facts stated herein and, if called to testify, I would and could testify competently thereto.
 - 2. I am the co-chair of the High-Level Expert Group on the Measurement of Economic Performance and Social Progress at the Organisation for Economic Co-operation and Development ("OECD"), and the Chief Economist of the Roosevelt Institute. I have received numerous fellowships and honors over my career, including the Nobel Memorial Prize in Economics in 2001.
 - 3. Prior to assuming my position at Columbia University, I held professorships at Stanford University, Yale University, Princeton University, and the University of Oxford, where I taught a wide variety of graduate and undergraduate courses in economics and finance. Public economics and public finance, which study how governments raise funds and make expenditures, have been major pillars of my academic work.
 - 4. From 1993 to 1997, I served as a member of President Clinton's Council of Economic Advisers, and from 1995 to 1997, as Chairman of the Council and a member of the President's Cabinet. As Chairman and Cabinet Member, I was heavily involved in formulating fiscal policy, sustainable economic policies (including environmental economic policies), financial sector regulation and banking policy, and coordinating policy with the U.S. Treasury.

- 5. Environmental economics and economic policy around natural resources has been another focus of my academic and professional work. I was one of the lead authors of the 1995 Report of the Intergovernmental Panel on Climate Change, which shared the 2007 Nobel Peace Prize with former Vice President Gore. I was co-chair of the High-Level Commission on Carbon Prices (we released our report in May 2017). I was also involved in environmental economic policy during my time on the Council of Economic Advisors, where one of my responsibilities was evaluating, designing, and implementing public policies that affect the environment, and while Chief Economist of the World Bank, where one of my responsibilities was evaluating and designing environmentally sustainable economic policies. I have also published many peer-reviewed articles that examine how we treat externalities (e.g., pollution), public goods (e.g., the environment), and depletable and renewable natural resources.
- 6. I submit this Declaration in support of Plaintiffs' Opposition to Defendants' Motion for a Stay Pending a Petition for a Writ of Mandamus and provide my expert opinion based on my review of the government's position in its motion, the data discussed herein, and my extensive experience and study as set forth in greater detail in my expert report.
 - a. I understand the Solicitor General has approved the filing of this Motion, arguing the Department of Justice ("DOJ") is "irreparably harmed" by having to spend time preparing for trial, given the amount of money the DOJ has spent and will spend in attorney and expert time in defending this case. I understand the amount of money the DOJ has spent and will spend is the only argument of irreparable harm that the DOJ has presented. I also understand that a showing of irreparable harm is required to win their Motion for a Stay.

- b. I want to be clear: The argument that the DOJ (or even the federal government) is somehow "irreparably harmed" by having to spend time preparing for trial, given the amount of money the DOJ has spent and will spend in attorney and expert time in defending this case, is a ludicrous argument. To suggest the harm to children's health and homes and constitutional rights is worth less than the money the government has to spend to litigate a case is to suggest every case could be stayed only because it cost taxpayer dollars to litigate.
- c. This Declaration rebuts the DOJ's assertion of irreparable harm: the true irreparable harm is the approximate cost of climate disasters or other climate economic harm since this case began and even since the first trial in this case was stopped in October 2018 and through the end of 2023, along with any projections of the range of harm going forward, as well as the amount the U.S. has spent (and continues to spend) subsidizing the fossil fuel industry. The real urgency is to stop the climate crisis and the already-dangerous *status quo* from worsening, and to protect these young people's constitutional rights. There are very real and irreparable societal costs and risks of the federal government continuing these fossil fuel enterprises while this lawsuit is pending. Delay is very costly.
- d. The cost of delay to these young Plaintiffs and the public interest is enormously high. Delay equates to more climate damage, particularly for young people. Delay creates not only economic costs, but great uncertainty. The federal government has spent taxpayer money taking the case to the appellate courts, rather than allowing it to go to trial. In economic terms, this case should be decided at trial without

further delay. That is the best way to avoid further irreparable harm to these plaintiffs and our Nation, as well as the sheer economic costs of more delay.

- 7. This Declaration seeks to provide the Court with information related to:
 - a. the amount of money Defendants in this case have provided in direct and indirect subsidies to the fossil fuel industry since this case was first filed in August 2015;
 - b. the economic costs to the United States in terms of climate harms, primarily from climate disasters, since this case was first filed in August 2015;
 - c. the enormous costs of delay and projections of future economic costs from climate disasters; and
 - d. a comparison of the aforementioned economic consequences, which are many orders of magnitude greater than, the purported "irreparable harm" of the DOJ's legal bills.
- 8. Even if not all these costs would be averted by a speedier resolution of this case, but only a small fraction of them (such as the continued expenditure on fossil fuel subsidies, in which the U.S. government is acting in ways which worsen the climate crisis) were averted, the amounts dwarf those claimed by the DOJ. To my knowledge, the DOJ has not, in fact, provided a risk analysis identifying even the expected savings in litigation costs from further delay; simply telling us how much has been spent does not address the relevant issue which concerns the expected incremental costs with continuing to move for stays of litigation and petitioning for writs of mandamus, rather than proceeding to trial.

Cost of Subsidies

9. The current national energy system, in which approximately 80 percent of energy comes from fossil fuels, is not an inevitable consequence of history, but a direct result of decisions

and actions taken by Defendants that I have previously summarized in my expert report for this case. Doc. 266.

- 10. The federal government's direct subsidies to the fossil fuel industry have been estimated at approximately \$20.5 billion per year. The International Monetary Fund estimates the total implicit and explicit fossil fuel subsidies provided in the United States were almost \$760 billion in 2022.
- 11. Defendants have known for at least 40 years that the direct and indirect subsidies the federal government has been providing to fossil fuel producers hinder the adoption of renewable energy and the transition towards a less carbon-intensive economy. Yet, in spite of this knowledge, the federal government subsidies have continued over the course of this case, and have exacerbated the costs to these Youth Plaintiffs and the Nation from climate change. Thus, there was a known, substantial risk of serious harm to these Youth Plaintiffs that could have been eliminated through reasonable and available measures that Defendants did not take, thus causing the injuries that these Youth Plaintiffs have suffered and will suffer in the future absent a declaratory judgment of constitutional violations these Youth Plaintiffs seek in this case. These costs continue so long as there is not a resolution of this case.

¹ Environmental and Energy Study Institute, Fact Sheet: Proposals to Reduce Fossil Fuel Subsidies (July 2021), https://www.eesi.org/files/FactSheet_Fossil_Fuel_Subsidies_2021.pdf.

² International Monetary Fund, *IMF Fossil Fuel Subsidies Data: 2023 Update* (Aug. 24, 2023), https://www.imf.org/en/Publications/WP/Issues/2023/08/22/IMF-Fossil-Fuel-Subsidies-Data-2023-Update-537281.

Climate Costs

- 12. The economic impacts of the actions, including the direct and indirect subsidies of the federal government, are deleterious to these Youth Plaintiffs³ and the Nation as a whole. Defendants' actions promoting a fossil fuel-based energy system are serving to undermine the legitimate government interests of national security and economic prosperity that they purport to advance.⁴
- 13. Defendants assert that "[n]othing has changed since this case was filed" (Mot. to Stay at 7). If this is true, my earlier analysis remains valid and the harms I identified have continued unabated for the past five years. However, it is not the case that nothing has changed: things have only become worse. Data recently released by the National Oceanic and Atmospheric Administration ("NOAA")⁵ shows that 2023 was the warmest year since global records began in 1850 by a wide margin—1.18°C (2.12°F) above the 20th century average, 0.15°C (0.27°F) more than the previous record set in 2016.⁶

³ Section IV of my Expert Report details the enormous economic burdens and costs that will be largely shouldered by Youth Plaintiffs and Affected Children due to Defendants' actions that contribute to the further accumulation of greenhouse gases. Doc. 266-1.

⁴ Daniel R. Coats, Director of National Intelligence, "Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community," *Office of the Director of National Intelligence*, Feb. 13, 2018, https://www.intelligence.senate.gov/sites/default/files/documents/osdcoats-021318.PDF (p. 16: "The impacts of the long-term trends toward a warming climate, more air pollution, biodiversity loss, and water scarcity are likely to fuel economic and social discontent—and possibly upheaval…").

⁵ NOAA is a federal agency with the "mission to better understand our natural world and help protect its precious resources extends beyond national borders to monitor global weather and climate, and work with partners around the world." https://www.noaa.gov/about-our-agency. ⁶ NOAA, *2023 was the World's Warmest Year on Record, by Far* (Jan. 12, 2024), https://www.noaa.gov/news/2023-was-worlds-warmest-year-on-record-by-far.

- 14. The White House states, "[a]s temperatures continue to increase—causing more severe heat waves, coastal flooding worsened by sea-level rise, and other natural disasters—the costs of climate risk will likely continue to rise in the coming years."⁷
- 15. The *Fifth National Climate Assessment* (2023)—the U.S. government's report on climate change impacts, risks, and responses⁸—states:
 - "Each additional increment of warming is expected to lead to more damage and greater economic losses compared to previous increments of warming, while the risk of catastrophic or unforeseen consequences also increases." (Overview at 5)
 - "In the 1980s, the country experienced, on average, one (inflation-adjusted) billion-dollar disaster every four months. Now, there is one every three weeks, on average.
 ... Extreme events cost the US close to \$150 billion each year—a conservative estimate that does not account for loss of life, healthcare-related costs, or damages to ecosystem services." (Overview at 17)
- 16. NOAA recorded the number of deaths from billion-dollar climate-weather disasters from 1980 to 2023, showing that the loss of life is significant. For example, from 2018 to 2023 (the years affected by the delay of this trial), there were 2,243 deaths. In September 2017, there were 2,981 deaths from Hurricane Maria *alone* (the single deadliest event in the 44-year record from NOAA).

⁷ The White House, *The Importance of Measuring the Fiscal and Economic Costs of Climate Change* (Mar. 14, 2023), https://www.whitehouse.gov/omb/briefing-room/2023/03/14/the-importance-of-measuring-the-fiscal-and-economic-costs-of-climate-change/.

⁸ The Fifth National Climate Assessment is "the U.S. Government's preeminent report on climate change impacts, risks, and responses. It is a congressionally mandated interagency effort that provides the scientific foundation to support informed decision-making across the United States." https://nca2023.globalchange.gov/.

⁹ NOAA, National Centers for Environmental Information, Billion-Dollar Weather and Climate Disasters: Events (2024), https://www.ncei.noaa.gov/access/billions/events/.

- 17. Costs to human health and the burden on our healthcare system are also substantial. As the Commonwealth Fund reports, "[o]ne study of 10 climate events from 2012 in the U.S. revealed that the health-related costs, including hospital admissions, emergency department visits, other medical costs and lost wages totaled \$10 billion in 2018 dollars." This amount includes both mortality costs (people dying earlier) and morbidity costs and lost wages. 11
- 18. In 2023, twenty-eight separate billion-dollar weather and climate disasters occurred in the U.S.—the highest number of billion-dollar disasters on record. The total cost of weather and climate disaster events from 2017-2023, during the pendency of this case, exceeds \$1.0 trillion. The total cost of weather and climate disaster events from 2017-2023, during the pendency of this case, exceeds \$1.0 trillion.

¹⁰ Shanoor Seervai et al., *The Impact of Climate Change on Our Health and Health Systems*, The Commonwealth Fund (May 4, 2022),

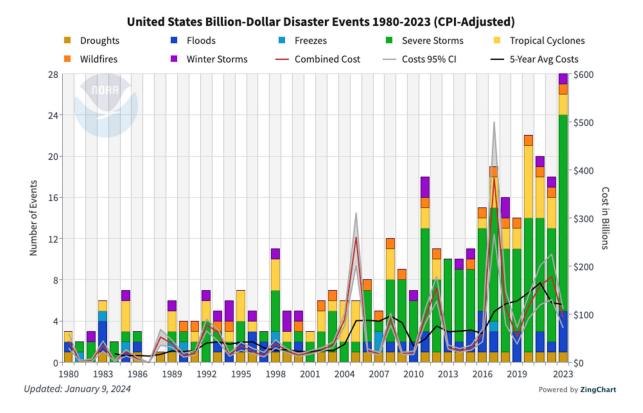
https://www.commonwealthfund.org/publications/explainer/2022/may/impact-climate-change-our-health-and-health-systems.

¹¹ Vijay S. Limaye et al., *Estimating the Health-Related Costs of 10 Climate-Sensitive U.S. Events During 2012*, 3 GeoHealth 245 (2019),

https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2019GH000202.

¹² NOAA, *U.S. Struck with Historic Number of Billion-Dollar Disasters in 2023* (Jan. 9. 2024), https://www.noaa.gov/news/us-struck-with-historic-number-of-billion-dollar-disasters-in-2023.

¹³ NOAA, National Centers for Environmental Information, Billion-Dollar Weather and Climate Disasters: Time Series (2024), https://www.ncei.noaa.gov/access/billions/time-series.



Delay Creates Enormous Costs

- 19. In 2022, the Office of Management and Budget's *Climate Risk Exposure: An Assessment of the Federal Government's Financial Risks to Climate Change* found that climate change could lead to 7.1 percent lower federal revenue by 2100 (equal to approximately \$2 trillion in today's dollars). ¹⁴ By late century, the federal government could spend an additional \$25 billion to \$128 billion annually on crop insurance, coastal disaster relief, flood insurance, healthcare insurance, wildland fire suppression, and flooding at federal facilities.
- 20. In economic analysis, we weigh the economics of delay by comparing any negative costs of the delay with the benefits of delaying these activities.

¹⁴ Office of the President, *Climate Risk Exposure: An Assessment of the Federal Government's Financial Risks to Climate Change* (Apr. 2022), https://www.whitehouse.gov/wp-content/uploads/2022/04/OMB Climate Risk Exposure 2022.pdf.

21. The environmental damage alone, notwithstanding the cost to human life discussed above, ¹⁵ could be irreparable.

DOJ's Costs of Litigation

- 22. The President's Budget for Fiscal Year 2024 (FY24) submitted to Congress requests a total of \$39.7 billion in discretionary resources and \$9.7 billion in mandatory funding for the Department of Justice. ¹⁶
- 23. The costs described above far outweigh the 21,000 hours expended on this litigation by Department of Justice attorneys and paralegals, even assuming the combined rate for these attorneys and paralegals is \$500/hour, which would total approximately \$10.5 million.
- 24. There is real urgency to stop the climate crisis and the already-dangerous *status quo* from worsening, and to protect these young people's constitutional and public trust rights. There are very real and substantial societal costs and risks of moving forward with these fossil fuel enterprises while this lawsuit is pending.
- 25. The cost of delay to these Youth Plaintiffs and the public interest is enormously expensive.

 Delay for the Youth Plaintiffs equates to more climate damage. Delay creates not only economic costs, but great uncertainty.¹⁷

¹⁵ As noted above, the estimated mortality cost of just 10 large climate events in 2012 was \$8.4 billion. *See* Limaye, *supra* note 11.

¹⁶ U.S. DOJ, *Department of Justice Fiscal Year 2024 Funding Request* (Mar. 9, 2023), https://www.justice.gov/opa/pr/department-justice-fiscal-year-2024-funding-request ¹⁷ There is one more cost, which we believe is small, indeed negligible compared to the climate-related costs that we have identified, and that is the Plaintiffs' litigation costs. These have been and are continuing to increase because of the delaying tactics of the DOJ. While the DOJ has only provided an estimate of total hours spent, and not the expected incremental hours to be saved by their delaying action, we believe very strongly that the expected litigation costs, on the part of both the plaintiff and the DOJ, will be increased by delay.

26. The federal government has expended taxpayer money taking the case up on appeal, rather than allowing it to go to trial. The amount of time and money spent over the past six years seeking early appeals and mandamus has been large. We have already laid out the magnitude of the damages to the Youth Plaintiffs, their generation, and the public. In economic terms, and for the health of the Nation, the balancing of potential harms is clear: this case should finally be decided at trial without further delay. That is the best way to avoid further irreparable harm and the sheer economic costs of more delay.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on February 1, 2024.

Respectfully submitted,

Joseph F. Stiglitz Ph D