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TRANSPORTATION AND
INFRASTRUCTURE
CHAIRMAN



Congress of the United States
House of Representatives

The Honorable Peter DeFazio
House Select Committee on the Climate Crisis
November 14, 2019

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Chair Castor and Ranking Member Graves:

Thank you for holding today's hearing. To be successful in combatting the climate crisis, all ideas must be on the table. As a leader in this fight, I appreciate the opportunity to share my ideas and priorities.

Climate change is an existential threat to the planet as we know it, and we have a moral obligation to act aggressively and immediately. Congress has a duty to ensure the youth of today and future generations inherit an environment that is healthy and sustainable.

We are already experiencing the consequences of inaction. Our summers are getting hotter, droughts more frequent, and ocean acidification continues to escalate. In my district, our forests have become tinderboxes. Last year, and the year before, Southwest Oregon experienced devastating wildfires that burned hundreds of thousands of acres and generated hundreds of thousands of tons of carbon emissions. The fires not only destroyed our forests and private lands, they also affected our recreation and tourism industry and produced dangerous levels of smoke that threatened public health. Earlier this year, my district experienced flooding and snow levels we haven't seen in decades.

We ignore at our peril that climate change has occurred because of human activities. Recent studies by prominent climate scientists provide a critical wake-up call and reveal the damage that has already taken place. One, published in November 2017 by my constituent, Oregon State University professor Dr. Bill Ripple, is entitled "World Scientists' Warning to Humanity: A Second Notice," and endorsed by more than 15,000 scientists. In the first

“Warning to Humanity” report, released 25 years before, scientists called on humanity to make changes or, “so alter the living world that it will be unable to sustain in the manner that we know.” Sadly, Dr. Ripple found that we had only made progress in one major area: our effort to reduce the amount of ozone-depleting substances.

This past Earth Day I participated in a conference with Dr. Ripple to discuss his findings. While his study laid out the urgency of reversing the current path to environmental destruction, it also provided ways we can address climate change today. Dr. Ripple’s study found that one of the most effective ways we can reduce carbon emissions is to support policies that have a strong federal mandate to reduce greenhouse gas (GHG) emissions in the U.S. and abroad.

Again working with a team of international climate experts, Dr. Ripple released his second warning which reinforced his initial study, using data that tracks the vital signs of climatic impact. His report declared that not only has the climate crisis arrived, it is accelerating faster than most scientists expected, and is more severe than anticipated.

In September, the International Panel on Climate Change issued the “Ocean and Cryosphere in a Changing Climate” report. Like Dr. Ripple’s 2017 study, the report held dire warnings about the damage climate change is having on ocean ecosystems and the danger it poses to the billions of people that live along coastlines. It provided more evidence that melting ice sheets and glaciers, sea level rise, and ocean acidification are getting worse. The research also found that the ocean also experiences “heat waves,” just like those that occur on land. Ocean heat waves impact nearly all marine life by disrupting the ocean’s food chain. In 2014 and 2015, an ocean heat wave called “the Blob” occurred in the Pacific Northwest. It wreaked havoc off the Oregon coast, causing the largest algal bloom ever recorded in our region, shutting down crabbing and other fisheries for months. If oceans continue to warm and acidification intensifies, Oregon’s coastal economies could collapse.

Thankfully, there are ways to not only reverse the damage to the ocean but also to use the ocean as a way reduce climate change. Another of my constituents, Oregon State University Distinguished professor and former Administrator of the National Oceanic and Atmospheric

Administration Dr. Jane Lubchenco, recently led the High Level Panel for A Sustainable Ocean Economy's report "the Ocean as a Solution to Climate Change" which found the ocean can be a powerful tool to sequester carbon as well as development of renewable energy sources. The report found that developing off-shore energy sources while not negatively affecting marine life, restoring blue carbon ecosystems such as seagrasses and salt marshes, and using alternative fuels in the shipping industry can significantly contribute to combatting climate change.

As I noted at the beginning of my testimony, there is no one policy that will achieve the significant reduction of greenhouse gas emissions we need for humanity to survive. A decade ago, I was one of the first Members of Congress to be the lead cosponsor of a bill to cap, regulate, and reduce emissions, and I believe that is a policy we must consider. Other incentives I support to expedite the transition to a one hundred percent renewable energy portfolio, such as progressive carbon fee and dividend or similar proposals are a vital part of how to accomplish this.

Yet it's critical to ensure that our policies do not unintentionally hurt struggling low income, rural communities, or benefit some regions while penalizing others. That is one reason I am an original cosponsor of H. Res. 109, also known as the Green New Deal. Beyond laying out a bold action plan to quickly achieve net-zero greenhouse gas emissions, it makes clear that we can create millions of good, high-wage jobs in every region of the country.

At twenty-nine percent, the transportation sector is now the biggest source of greenhouse gas emissions in the U.S. Within the transportation sector, passenger and freight vehicles contribute 83 percent of global warming emissions. Congress must act to combat this, and as Chair of the Transportation and Infrastructure Committee, I intend to comprehensively tackle the transportation system's effect on climate change as part of the upcoming surface transportation bill.

We must address emissions from passenger vehicles, and that means eliminating emissions from single occupancy vehicles through electrification and investing in modes of transportation that don't involve taking a car at all. Far greater investment in public transit and

bicycle and pedestrian infrastructure will provide safe, reliable, competitive alternatives to single occupancy vehicles that choke our interstate highway system, burn fossil fuels sitting in traffic, and slow the efficient movement of freight. Transit needs a shot in the arm to bring rolling stock and rail systems to a state of good repair. Further resources must be brought to bear to increase levels of service to provide transit riders reliable and frequent service that gets them where they need to go when they need to be there.

The lowest carbon mode of transportation is walking and biking. Today, record numbers of Americans are walking and biking as a primary mode of transport, but also record numbers of American cyclists and pedestrians are dying on our roadways. In fact, the National Highway Transportation Safety Administration reported that, nearly 20 bicyclists and pedestrians were killed every single day last year¹. My transportation bill will include new funding to improve safety and help cities create the network of walking and biking infrastructure that will allow people to safely walk and bike in their communities.

I also realize, however, that many Americans, especially those in rural areas, will continue to drive. We must invest in the infrastructure to support a shift from carbon-based fuel sources to electric and zero emission vehicle technology and fueling systems. My bill will lay the groundwork for an electrified highway system to reduce range anxiety and further the broad adoption of zero emission vehicles.

While reducing carbon emissions from the transportation sector will have the largest impact, there are other areas within the Transportation and Infrastructure Committee's jurisdiction in which I'm pushing changes that will help reduce human impacts on climate change.

For example, last month my committee passed a landmark reauthorization of the Clean Water State Revolving Fund which includes a requirement for utilities to maximize their energy

¹ National Center for Statistics and Analysis. (2019, October). 2018 fatal motor vehicle crashes: Overview. (Traffic Safety Facts Research Note. Report No. DOT HS 812 826). Washington, DC: National Highway Traffic Safety Administration. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812826>

efficiency potential, including the recapture and reuse of methane emissions. Innovative approaches like this should be part of our nation's comprehensive strategy to combat climate change.

I intend to provide continued federal leadership in the administration of public building contracts, moving the GSA beyond the current LEED standards and towards carbon neutral facilities. In addition, other modes within the transportation sector will need to become more sustainable. We need to expand access to renewable jet fuel, increase freight transport by water, and reduce the carbon emissions of overseas shipping. As a matter of fact, A.P. Møller Maersk – the world's largest ocean carrier – and other maritime stakeholders in the Global Maritime Forum have committed to decarbonize ocean shipping by 2050. We should follow their lead across other transportation modes.

Finally, as we actively work to reduce emissions, we also need to steel ourselves with more resilient infrastructure. Revisiting design standards in flood-prone areas, utilizing less carbon intensive materials, and incorporating natural infrastructure are all techniques that must be part of our future infrastructure plans. Building infrastructure that will have a smaller carbon footprint and be more resilient to storms of greater intensity will help prepare us for the changing climate and reduce the long-term costs for recovery after damaging storms.

Threats to our climate are happening around the world. Although outside our borders these climate crises have impacts at home. In response to the devastating fires and continued illegal deforestation in the Amazon, I introduced H.R. 4263, the Act for the Amazon Act. The bill would ban the import of items produced by illegal deforestation, halt military aid, and prohibit a free trade agreement with Brazil until their government ends the devastation caused by the fires and illegal deforestation. The Amazon serves as the lungs of the earth. Without significant intervention to curtail destruction of the rainforest, it will impact rainfall in the United States, dramatically reduce our crop yields and food supply, and increase the extreme conditions for catastrophic wildfires in the Pacific Northwest. We must act to end the destruction of the rainforest, and my bill takes a significant step to do so.

There are numerous technologies that can reduce emissions or sequester carbon. Some are mature and in use today, and some are in a nascent stage of development. For example, we must promote the use and development of 100 percent renewable hydrogen. In early August I held a roundtable to raise awareness of the potential for renewable hydrogen to power parts of our transportation system, maximize the efficiency of renewable energy production, and make our communities more resilient during natural disasters, all while significantly lowering carbon emissions. I brought together utilities, a major car manufacturer, energy entrepreneurs, and nonprofits dedicated to fighting climate change through substantive policy.

Renewable hydrogen is a clean fuel that can power cars, buses, trains, ships, and even electric utilities while only emitting water vapor as a byproduct. To produce this hydrogen, electricity is used to split or “crack” water into hydrogen and oxygen. When that electricity comes from renewable energy sources like wind and solar, then we have a revolutionary fuel that could potentially meet significant amounts of energy needs without any carbon emissions.

The ability to store surplus renewably-generated electricity is one of the most challenging aspects to achieve a 100 percent renewable energy future. By using renewable electricity to convert water in to hydrogen, we can store hydrogen fuel in fuel cells that can generate power when we need it.

An increasing number of utilities and companies are incorporating hydrogen fuel into their portfolios and long-term business plans. At the roundtable, Toyota brought its hydrogen-fuel-cell-powered Mirai passenger car. Tech start-up Hydrostar brought a demonstration of a low cost electrolyzer that can use renewable energy to create 100 percent renewable hydrogen. The Eugene (Oregon) Water and Electric Board is looking at innovative plans to use hydrogen to store surplus renewable energy as emergency backup power during natural disasters.

California is nurturing the use of hydrogen fuel-powered vehicles by co-funding hydrogen refueling stations. There are now more than 30 hydrogen fueling stations powering the more than 4,200 hydrogen fuel cars in the state. The federal government must follow California’s lead and propel the growth of hydrogen fuel technologies. Like wind and solar, the federal

government can provide various tools to help this technology reach economies of scale, reduce its price, and make it more available to the public.

As I noted, it is immoral and unethical for policy makers to abandon our duty to leave a sustainable planet. Our nation's youth rightly demand that the government has a constitutional duty to protect them from the existential threat of climate change. Which is why in February, I was one of seven members of Congress to send a "friend of the court" brief to support the plaintiffs in the *Juliana vs. United States* to the court in support of their argument. Three of the plaintiffs are from my district; once again Oregon leads the way.

Let me be clear: I will not stand by as our earth lurches toward a state that cannot support life. I am open to any and all ideas to overcome our climate crisis. One thing is certain: we cannot give up. We don't have to. We already have solutions that will put us on the road to lower carbon emissions, we just need the political will to act. You can count on me to continue working to end the most critical issue facing our world.

Thank you again for holding today's hearing.