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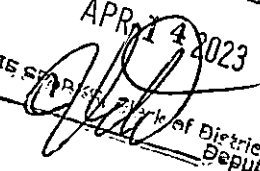
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MONTANA FIRST JUDICIAL DISTRICT COURT
LEWIS AND CLARK COUNTY

RIKKI HELD, et al., Plaintiffs, v. STATE OF MONTANA, et al., Defendants.	Cause No. CDV-2020-307 Hon. Kathy Seeley DECLARATION OF PETER A. ERICKSON IN SUPPORT OF PLAINTIFFS' RESPONSE BRIEF IN OPPOSITION TO DEFENDANTS' MOTION TO PARTIALLY DISMISS FOR MOOTNESS
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APR 14 2023
By 
ANGIE SPARKS, Clerk of District Court
Deputy Clerk

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Pursuant to MCA §1-6-105, Peter A. Erickson hereby declares as follows:

1. I am an expert and rebuttal witness in the above-entitled action. I am making this declaration in support of Plaintiffs' Response Brief in Opposition to Defendants' Motion to Partially Dismiss for Mootness. I have personal knowledge of the facts stated herein, except as to those stated on information and belief, and if called to testify, I would and could testify competently thereto.

QUALIFICATIONS & SUMMARY OF EXPERT TESTIMONY

2. The purpose of my expert testimony in this case is to describe the fossil fuel consumption, extraction, and infrastructure that Defendants permit, based on three categories of activities: (1) extraction of fossil fuels; (2) processing and transportation of fossil fuels; and (3) consumption of fossil fuels by end users. Doc. 222, Expert Report at 1. In my expert report, for each of these categories I quantify the amount of coal, oil, and gas, both in units of energy and in units of carbon dioxide (CO₂) emissions released from the fuels once they are combusted. Expert Report at 1, 19-20. In my expert report, I reserved the ability to supplement my report should additional relevant or pertinent information become available. Expert Report at 3.
3. The purpose of my rebuttal testimony is to respond to information provided by Drs. Judith Curry and Terry Anderson in their respective expert reports filed on behalf of the State of Montana. I explain how Drs. Curry and Anderson both mischaracterize the scale of Montana's GHG emissions and the nature of the global effort to limit global warming. Rebuttal Report at 1 (Doc. 240). I reiterate the conclusion made in my expert report that "Montana's contribution to global greenhouse gas emissions and, therefore global warming, is nationally and globally significant." Rebuttal Report at 1.

4. For over twenty years, I have worked as an environmental policy researcher and scientist who is affiliated with Stockholm Environment Institute. I received a Bachelor of Arts degree from Carleton College in 1998 and my major field of study was Geology, and I studied mathematics extensively as well. In 2007, I took courses in intermediate microeconomics and macroeconomics at the University of Washington. Over the last 15 years, my professional focus has been on GHG emissions accounting and the role of policy mechanisms in reducing GHG emissions and developing low-carbon energy and services. I have conducted and led research projects on these topics on behalf of numerous partners and clients, including international institutions (e.g., the United Nations Framework Convention on Climate Change, the World Bank), the U.S. government (e.g., Environmental Protection Agency); state governments (e.g., State of Washington, State of Oregon), and local governments (e.g., City of Seattle). Expert Report at 1-2. I have authored numerous peer-reviewed studies and working papers and reports on how policies, actions, or infrastructure projects increase or decrease GHG emissions. Expert Report Attachment 1. I was also an invited reviewer to the GHG emission reduction chapters in Working Group III of the Intergovernmental Panel on Climate Change's ("IPCC") Sixth Assessment Report, published in 2022. Expert Report at 2.
5. In preparing my expert report, I reviewed documents, data, and studies to develop my conclusions and opinions, including a number of permits and licenses the Defendants issued to authorize a wide variety of fossil fuel-related projects, which "illustrate how Montana controls and authorizes fossil fuel exploration, development, extraction, and infrastructure." Expert Report at 2-3, Attachment 2. I also reviewed Montana's State Energy Policy Act as described and quoted in the Complaint, and viewed it as an example of how each Defendant "holds substantial influence over the levels of fossil fuels that are extracted in, consumed in,

or transported and refined in Montana.” Expert Report at 18, 20. Based on my review of relevant documents, data and studies, and my own experience and expertise, I concluded that the emissions that result from Montana’s fossil fuel energy system “are nationally and globally significant in terms of contributing to and exacerbating climate change.” Expert Report at 20.

THE REPEAL OF THE STATE ENERGY POLICY

6. Counsel for the Plaintiffs informed me that the State of Montana has repealed the State Energy Policy, Mont. Code Ann. § 90-4-1001, which is a new development since I finalized both my expert and rebuttal reports. I have also reviewed the Declaration of Plaintiffs’ Expert Anne Hedges, which provides additional factual context leading up to the repeal of the law. Doc. 300, Hedges Dec. in Supp. of Pls.’ Opp’n to Defs.’ MSJ (Feb. 14, 2023).
7. It is my opinion that the repeal of the State Energy Policy through HB 170 does not alter the conclusions I made in either my expert or rebuttal reports. In my expert report, which only mentions the State Energy Policy on two occasions, I viewed that statute as an example of how “[t]he State of Montana, and each Defendant, holds substantial influence over the levels of fossil fuels that are extracted in, consumed in, and transported and refined in Montana.” Expert Report at 18. The repeal of this statute does not change the fact that “Defendants direct and issue energy policy, plans, and permits, and conducts a variety of energy planning activities that influence the direction of Montana’s energy system toward, or away from, fossil fuels and the resulting CO₂ emissions.” Expert Report at 18. I have received no new information to show that Defendants have or will change this course of conduct which is illustrated by the numerous permits and licenses the State issues for fossil fuel activities, some of which I reviewed and compiled as examples in Attachment 2 to my Expert Report. Expert Report at 18, Attachment 2. In fact, the Montana Department of Natural Resources and Conservation's website shows

that it conducted an oil and gas lease sale in March 2023, leasing 5 tracts encompassing 2,237 acres of state trust lands.¹ On March 31, 2023, the Department of Environmental Quality issued Montana Air Quality Permit #5274-01 to ONEOK Rockies Midstream, LLC for a Natural Gas Compressor Station.² These actions by two defendant agencies serve as additional examples of how they continue use their authority to authorize fossil fuel activities that will result in GHG emissions and contribute to climate change.

8. The State's repeal of the State Energy Policy also does not change the GHG emissions accounting I describe in both my expert and rebuttal reports because that is based on data compiled by the federal government. Instead, cumulative GHG emissions from Montana are likely slightly higher than when I prepared my initial expert report since more fossil fuel activities have been permitted since then.
9. In sum, notwithstanding the repeal of Montana's State Energy Policy, Mont. Code Ann. §90-4-1001, my conclusions set forth in my expert and rebuttal reports remain true: Montana's GHG emissions are both nationally and globally significant, and it "has the responsibility, and the opportunity, to steer its energy system away from high-carbon fossil fuels and towards other, low- and zero-carbon, activities to reduce GHG emissions that are contributing to climate change." Expert Report at 20; Rebuttal Report at 5 (Drs. Curry and Anderson "misrepresent the importance of Montana's substantial greenhouse gas emissions and the nature of the global effort to limit global warming," "fail to acknowledge how Montana's emissions are similar to those of many other countries," and "ignore the scientific opinion of

¹ <https://dnrc.mt.gov/TrustLand/subsurface-resources/oil-gas-leasing>; <https://dnrc.mt.gov/TrustLand/subsurface-resources/Documents/Mar2023-Sale-Results.pdf>.

² <https://deq.mt.gov/files/Air/AirQuality/Documents/ARMpermits/5274-01.pdf>

the IPCC that every ton of carbon dioxide emissions adds to global warming, increasing the frequency and severity of climate impacts.”).

THE IPCC’S NEW SYNTHESIS REPORT

10. On March 20, 2023, the Intergovernmental Panel on Climate Change (“IPCC”) released the *Summary for Policymakers* for the Synthesis Report of the IPCC Sixth Assessment Report.³ The findings in this report provide additional support for the primary conclusions in both my expert and rebuttal reports. For example:

- “Continued emissions will further affect all major climate system components. With every additional increment of global warming, changes in extremes continue to become larger. Continued global warming is projected to further intensify the global water cycle, including its variability, global monsoon precipitation, and very wet and very dry weather and climate events and seasons (*high confidence*).” IPCC Summary for Policymakers at B.1.3.
- “Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people (*high confidence*).” IPCC Summary for Policy Makers at A.2.
- “Climate change has caused substantial damages, and increasingly irreversible losses, in terrestrial, freshwater, cryospheric, and coastal and open ocean ecosystems (*high confidence*).” IPCC Summary for Policymakers at A.2.3.

³ Intergovernmental Panel on Climate Change, *Summary for Policymakers, in Synthesis Report of the IPCC Sixth Assessment Report (AR6) (2023)*, available at <https://www.ipcc.ch/report/ar6/syr/>.

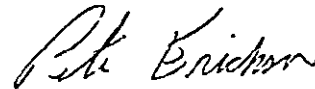
- “Continued emissions will further affect all major climate system components, and many changes will be irreversible on centennial to millennial time scales and become larger with increasing global warming. Without urgent, effective, and equitable mitigation and adaptation actions, climate change increasingly threatens ecosystems, biodiversity, and the livelihoods, health and wellbeing of current and future generations. *(high confidence)*.” IPCC Summary for Policymakers at C.1.3.
- “Continued greenhouse gas emissions will lead to increasing global warming, with the best estimate of reaching 1.5°C in the near term in considered scenarios and modelled pathways. **Every increment of global warming will intensify multiple and concurrent hazards (high confidence)**. Deep, rapid, and sustained reductions in greenhouse gas emissions would lead to a discernible slowdown in global warming within around two decades, and also to discernible changes in atmospheric composition within a few years *(high confidence)*.” IPCC Summary for Policymakers at B.1 (emphasis added).
- “Risks and projected adverse impacts and related losses and damages from climate change escalate with every increment of global warming *(very high confidence)*.” IPCC Summary for Policymakers at B.2.
- “The likelihood and impacts of abrupt and/or irreversible changes in the climate system, including changes triggered when tipping points are reached, increase with further global warming *(high confidence)*.” IPCC Summary for Policymakers at B.3.2.

- “Government actions at sub-national, national and international levels, with civil society and the private sector, play a crucial role in enabling and accelerating shifts in development pathways towards sustainability and climate resilient development (*very high confidence*).” IPCC Summary for Policymakers at C.1.2.
- “Deep, rapid, and sustained mitigation and accelerated implementation of adaptation actions in this decade would reduce future losses and damages related to climate change for humans and ecosystems (*very high confidence*).” IPCC Summary for Policymakers at C.2.1.
- “Delayed mitigation action will further increase global warming and losses and damages will rise and additional human and natural systems will reach adaptation limits (*high confidence*). Challenges from delayed adaptation and mitigation actions include the risk of cost escalation, lock-in of infrastructure, stranded assets, and reduced feasibility and effectiveness of adaptation and mitigation options (*high confidence*).” IPCC Summary for Policymakers at C.2.2.

11. In summary, the new IPCC report confirms that Montana’s GHG emissions matter and expresses the urgency in reducing GHG emissions that are contributing to climate change by reducing fossil fuel consumption and production.

Pursuant to MCA §1-6-105, I declare under penalty of perjury and under the laws of the state of Montana that the foregoing is true and correct.

Executed this 13th day of April, 2023 in San Francisco, California.

A handwritten signature in cursive script, appearing to read "Peter A. Erickson".

Peter A. Erickson