OPENING STATEMENT Ranking Member Suzanne Bonamici (D-OR) of the Subcommittee on Environment

Committee on Science, Space, and Technology Subcommittee on Environment Subcommittee on Energy "Geoengineering: Innovation, Research, and Technology" November 8, 2017

I want to thank the Chairman for holding this important hearing today on geoengineering.

I am encouraged that the Science Committee is discussing a field of science and engineering that is still in its infancy and has ample areas for further research. It is noteworthy for its potential, and it's important that we consider it from political, ethical, legal, and environmental perspectives.

Geoengineering is a set of climate interventions that aim to manipulate our climate to either remove greenhouse gases from our atmosphere or reduce the amount of sunlight absorbed by the Earth. Some may argue that geoengineering is a way to use technology to essentially bypass important mitigation and adaptation strategies that address climate change impacts, but even with geoengineering, our first and primary actions to address climate change must be mitigation and adaption strategies.

In our communities, climate change is not a partisan issue. Nationwide, fishers, farmers, small business owners, and our servicemen and women are changing the way they do their jobs because of climate change – and regardless of their political affiliation. The economic, health, and environmental consequences of climate change are well known, and our understanding about how to address the causes of climate change continue to improve.

The time is now. It is critical that we support scientific research about climate, and that we build on rather than break down decades worth of progress on this issue. I encourage this Committee to hold hearings specifically on climate mitigation and adaption strategies to help communities grapple with this dire situation.

Geoengineering is an option our country should look into. The state of current geoengineering research makes clear that we are decades away from potential deployment and the risks of such a deployment are not well understood.

In fact, a key finding in the US Global Change Research Program's Climate Science Special Report, which was published last Friday, determined that "[f]urther assessments of the technical feasibilities, costs, risks, co-benefits, and governance challenges of climate intervention or geoengineering strategies, which are as yet unproven at scale, are a necessary step before judgments about the benefits and risks of these approaches can be made with high confidence."

This is because of a lack of technical maturity and understanding of the risks associated with geoengineering. We do not currently have enough evidence to determine whether any of the various proposals for geoengineering can provide long-term solutions to address the impacts of climate change, or that they would not pose any adverse consequences on our environment.

Our climate <u>is</u> changing, and the warming trends observed over the last one hundred years are primarily caused by human activities, specifically the emissions of greenhouse gases. In fact, this is one of <u>the most prominent</u> findings in the Climate Science Special Report. This report unequivocally lays out the need to reduce carbon dioxide emissions to prevent long-term warming and short-term climate change.

Before I close, I would like to ask the Subcommittee Chairman for unanimous consent to include this letter, addressed to him and Chairman Smith, in the record. This letter has been signed by many prominent members of the geoengineering research community. It highlights the urgency of the threat that climate change poses and reemphasizes that geoengineering is not a magic fix to addressing the impacts of climate change.

I would like to yield a minute of my time to the gentleman from California, Mr. McNerney.