

Good morning Mr. Chair and members of the committee:

My name is David Reidmiller. I am a doctoral candidate in Atmospheric Sciences at the University of Washington. I am also a member of Professor Dan Jaffe's research group and together we study the transport of Asian pollutants into Washington State. I want to thank you for this opportunity to speak before committee regarding Senate Joint Memorial 8000. Dr. Jaffe sends his regards as he could not attend since he has class at this time. I would like to tell you about some of the key issues involved in our research.

First, global and in particular Asian pollutants are transported to the Pacific Northwest in about one week. This transport is at its greatest in spring time, but occurs throughout the year. We have detected increases in particulate matter, ozone, carbon monoxide, mercury and other pollutants that are attributable to Asian emissions. We know these pollutants originate in Asia because we use advanced meteorological models, chemical tracers, satellite data and other indicators that essentially give us a fingerprint, if you will, of the source region.

This transport of Asian pollutants worsens the background air quality, making it more difficult for Washington State to meet its own air quality standards. While some of these pollutants are present nearly all the time in small amounts, in a few cases, we have observed significant increases in pollution levels at the surface. As a result of Asian emissions contributing to higher pollution levels here in the Pacific Northwest, there are negative human health and environmental impacts. The main culprit remains our own emissions, but Asia is certainly a contributor. This problem will likely become worse with time as Asia - and particularly China - develop at an ever increasing rate.

From a policy point of view, energy consumption and subsequent CO₂ emissions are growing problems in need of attention. The IPCC recently released its 4th assessment document. Some of our work was cited in the report which illustrates how CO₂ is linked with other pollutants through energy use - particularly the use of coal. The largest consumers of coal in the world are China and the United States, respectively. Coal-burning is a major source of mercury and other pollutants. Clearly, these issues are linked in a complex way and future policy negotiations will require an understanding of these interactions, as well as international cooperation.

This matter is important to Washington State because we are the first, and possibly most impacted state with respect to Asian pollution. Our state has historically taken great pride in our green image and progressive environmental policies. The University of Washington's Department of Atmospheric Sciences is a national leader in the studies of climate change, its impacts and global pollution. Our ability to conduct high-quality research relies largely upon the work of graduate students, such as myself. The experiences I gain in working and studying at a world-class institution will undoubtedly assist me with my career ambitions, but will also bring recognition to the state as a whole through publications in professional journals, conference appearances, etc.

The U.S. E.P.A. is aware of the problems surrounding long-range transport of Asian pollution. We meet and discuss with scientists from the E.P.A. frequently. Unfortunately, funding from E.P.A. and other federal agencies has declined in the past several years, thus limiting our ability to conduct state-of-the-art research.

In closing, I want to thank the committee for bringing their attention to this issue and listening to my testimony. Hopefully, I have portrayed the importance of this issue and bill to our State. I would be happy to answer any questions.