My name is Katie Brennan and I am a 3rd generation Washingtonian and I grew up in a household that was and still is a Puget Sound Energy customer. Currently, I'm a doctoral student in the department of Atmospheric Sciences at the University of Washington, but my scientific interests have led me to work in a variety of areas related to air quality and climate change.

Prior to entering the doctoral program, I worked in a research lab studying the isotopic composition of methane all over the world, and this techniques allowed us to attribute where the methane we were measuring was coming from. We found that fossil fuel emissions of methane have been increasing since the 1980s by an average of a million tons per year. As scientists, we worry about this methane because it's an extremely efficient heat-trapper, approximately 25 times more effectively than carbon dioxide. Thus, energy sources like natural gas, which emit methane have the potential to perturb the climate system even if they only contribute seemingly small amount of emissions.

After graduating from college with a degree in math and physics, I continued to pursue my air quality interests at a company that built instrumentation to measure air pollution on and near the stack towers of power plants. At this job, I worked closely with both government regulators and power plant employees to help understand and reduce their harmful metal emissions. Though the technology and efficiency of these plants has advanced rapidly, they are still driving not only climate change but also air pollution that leads to detrimental health effects in our communities (namely lung and heart disease).

Now, at the University of Washington, I study Arctic sea ice which is as disappearing at rapid rates. Sea ice is an important component of the Arctic system and has large effects on climate all over the globe. However, under current predictions, the scientific community expects sea ice to disappear in the Arctic by 2060. The intricacies and details of exactly what is happening in the polar regions and how they will respond to increases in carbon dioxide are still being studied, but it's clear that these rapid changes are in a large part due to human-caused climate change. As someone who thinks about the Earth's climate nearly all day every day, continuing to use carbon-intensive fuels seems like an entirely unnecessary risk when there are other viable alternatives available to our communities.

As a researcher who is publicly funded to think about the Earth's climate nearly all day every day, continuing to use carbon-intensive fuels that pollute our air and water is an entirely UNNECESSARY risk to take when there are other viable alternatives available to us. So today, as a young Washingtonian from a family that relies on PSE power to run our day-to-day lives, I ask PSE to take this opportunity to move away from carbon-intensive fossil fuels in the next 20-years and beyond.

Thank you for your time.