## UTC 2/21/18

Commissioners, Thank you for allowing me to address you on the topic of health impacts of our energy choices. I am a 16-year PSE customer residing in Kirkland and a physician practicing cardiology at Evergreen Health. I currently chair the Climate Change and Health Task Force of Washington Physicians for Social Responsibility. We are deeply concerned about ongoing anthropogenic climate change and the rising risk of climate related disease and injury. We therefore are calling for Puget Sound Energy to transition off of coal and onto 100% renewable energy and efficiency increases as rapidly as possible.

Methane, euphemistically labeled as "natural gas" has been touted as a cleaner, so called bridge fuel. However careful examination of the life cycle of methane reveals serious health hazards at every step. Hydraulic fracturing, or fracking, requires forcing a large volume of water, sand, and a fluid containing known carcinogens, neurotoxins, and endocrine disrupting chemicals into the ground to open the shale formations to release methane. The process contaminates groundwater with these chemicals and releases heavy metals and radioactive materials from the shale. The industrial scale drilling process releases volatile organic compounds and particulate matter into the air. Living in proximity to fracking sites increases the risk of premature birth, low birth weight babies, congenital heart defects, acute asthma attacks as well as hospitalization for cardiac and neurologic disorders.

Estimates of life cycle leakage of methane are as high as 12%. In the 20 year time frame methane is 86 times more potent a greenhouse gas as CO2. Methane leaks therefore obliterate the climate advantage of gas over coal. Gas based generation plants have a lifespan of approximately 40 years. Therefore building more capacity saddles us with this old dirty unhealthy technology and delays the necessary full transition to wind, solar and geothermal solutions.

Physicians for Social Responsibility supports a just transition to renewable energy. We request that PSE to close the Colstrip Montana coal generation facility by 2025 and replace it with 100% renewable energy and efficiency increases. Thank you.

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