May 30, 2017

Dear Chelan County PUD Commissioners,

I am writing to you, as I am unable to attend your June 5th meeting. Several local colleagues are in agreement and are signing with me.

I am a Naturopathic Physician (ND) and a licensed primary care provider in the State of Washington. I am writing to express my professional opinion against the conversion to the advanced smart meters and my support of providing all PUD customers the choice to opt out of the meter upgrade.

There is a significant trend in medicine towards what is called Functional Medicine. It is an approach that includes Naturopathic Doctors, Medical Doctors, Nurse Practitioners, and beyond. It is the basis of Naturopathic Medicine that is now expanding to mainstream conventional medicine, and it is sometimes called Scientific Wellness. The Cleveland Clinic (a nationally renowned medical facility) in Cleveland, Ohio, has added a cutting-edge Center for Functional Medicine recently. This form of medical care looks beyond symptom management and addresses the underlying "causes" of illness, especially chronic disease.

I mention this international shift in medicine because Naturopathic Medicine and Functional Medicine address genetics, lifestyle, AND environmental factors. Clinical research confirms that environmental exposures have a major impact on human health. Electromagnetic frequencies/EMFs are one of the environmental factors being focused on.

In March 2017, I attended a continuing medical education seminar at the Puget Sound Functional Medicine group. The take home message from that evidence-based presentation is that the volume of EMFs already present in our homes is high, and it is growing, and it is of concern. As family practice physicians, we were urged to have the following patients turn off their wifi every night and to not have cell phones or other devices in the bedroom: those who are recovering from a concussion or brain injury and those who are at high risk of such injuries (children and adults playing sports with repetitive stress on the brain/spinal cord – hockey, football, ice skating, soccer, skateboarding, etc).

In addition, it was also presented that EMFs can disrupt our cell's mitochondria, a critical energy producing component of our cells. Mitochondrial damage is being studied in cancer and aging research. There is growing medical evidence of neuro-inflammation being responsible for

dementia, Parkinson's, and Alzheimer's Diseases, and EMFs have the potential to add to neuro-inflammation. I know that all of us know someone who is fighting cancer or dealing with a neuro-degenerative disease.

It is my professional opinion, that the proposed benefits of the smart meters are not worth the risks.

I believe that a notification to PUD customers would be in the public's interest, with a more balanced presentation of the possible health hazards, and that each household would benefit from having the option to opt out of the smart meter installation.

We appreciate your consideration in this matter.

Respectfully submitted,

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