Hello, my name is Dr. James Webber. I am the local Radiologist at Mountain West Medical Center in Tooele, Utah. Thank you Utility Facility Review Board for giving me the opportunity to present my comments.

While it true that I claim no expertise relevant to this topic, as a Radiologist I see cancer frequently on imaging studies, and as the radiation safety officer for our local hospital, I have somewhat of a knowledge of radiation and the health risks from it.

I have personally contacted Dr. David Carpenter, a nationally recognized expert on emfs I am submitting with my comments, a letter that has been sent from Dr. Carpenter, addressed to the Utility Facility Review Board. In addition, I will review some of the pertinent information that he sent me from two additional articles on the subject of emfs and health risks.

According to Dr. Carpenter, in his publication Electromagnetic Fields and Cancer: The Cost of Doing Nothing from the President's Cancer Panel January 27, 2009, he states the following: Since the pioneering studies of Wertheimer and Leeper in 1979, there has been evidence that residential exposure to elevated magnetic fields results in an increased risk of childhood leukemia. Most subsequent studies have confirmed elevated risks of leukemia in children. The challenge that the power industry, including Rocky Mountain Power, poses is in their assertion that there is no definite cause and effect relationship between emf exposures and health risks such as childhood leukemia. However, according to Dr. Carpenter, while no single mechanism has been identified to be the basis for the development of cancer as a result of exposure to EMFs and no animal studies have been able to consistently demonstrate cancer as a result of exposure to EMFs, this is not sufficient evidence to completely dismiss the association of emfs and cancer as irrelevant.

Furthermore, although EMFs are non-ionizing, that does not mean they are not carcinogenic, meaning cancer-causing. EMFs, according to Dr. Carpenter, are known to induce genes, generate reactive oxygen species, trigger formation of heat shock proteins, and cause indirect DNA damage, any one of which might lead to cancer. Furthermore, a study by Reif et al. demonstrated that dogs living in homes with very high wire codes (comparable to those associated with elevated risk of childhood cancer) showed a significant 6.8-fold elevated risk of developing lymphoma. Therefore, the concluding point that I want to forcefully submit is that Rocky Mountain Power's claim that there is no increased health risk from emf exposure because there is no definitive mechanistic data or experimental animal data that shows a definite cause and effect relationship, is absolutely irresponsible, and, in the words of Dr. Carpenter is erroneous and invites later litigation. Therefore, it is outrageous to conclude that power lines and emf exposures don't put children at increased risk of childhood leukemia. They substantially do, up to a two-fold increased risk of this disease alone. In summary, it is fundamentally wrong to knowingly allow power lines to be placed close to children's homes. This is a public health concern that cannot be mitigated.

In Dr. Carpenter's other publication, Setting Prudent Public Health Policy for Electromagnetic Field Exposures from Reviews on Environmental Health November, 2008, he points out the other fallacy of the argument that power line companies, such as Rocky Mountain Power make, that given there is no definite cause and effect relationship between emfs and health risks, that we should just ignore the mounting data against this conclusion. Specifically, he states that the level of proof used by the medical scientific community is that the associations from experimental animal and cell studies and from

human epidemiologic studies are established such that no more than a 5% possibility remains that the results could be due to chance. This possibility is called the 95% confidence interval, or even better the 99% confidence interval, at which no more than a 1% possibility exists that the results are due to chance. This level is the accepted standard of proof of association (not causation) in laboratory and epidemiologic studies, and when achieved, the results are concluded to be statistically significant. According to Dr. Carpenter, when evaluating the findings of statistically significant relations (meaning no more than a 1% possibility the results are due to chance), the relations between EMF exposure and disease, the evidence for leukemia in children is sufficiently strong to meet the criteria. The associations of disease with adult leukemia and brain tumors and neurodegenerative diseases such as Alzheimer's and Lou Gehrig's disease, is less extensive, but still sufficient to meet most of the criteria. Therefore, the conclusion I draw from this is again, direct cause and effect is not necessary to show that increased exposure to emfs **DOES** lead to a generalized increased risk of childhood leukemia, and it most certainly **WILL** lead to a similar increased risk in our own children here in Tooele County.

Therefore, I would strongly petition that the Utility Facility Review Board deny Rocky Mountain Power's appeal for a conditional use permit for the route that is currently being proposed. The health risks from the proposed route are too great and they cannot be mitigated. Thank you.