From: Nick Evano

To: <u>UTC DL Records Center</u>

Subject: Regarding UE-160918 and UG-160919

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PSE must revisit their measuring techniques and intent to use fracked gas pipelines as a whole. This is not only a matter of public and environmental health, it is also one of using sound scientific practices.

A decision to measure project impact by CO2 cost instead of CO2eq is, simply, the wrong approach. There should be no choice of "how thoroughly" a project should consider its own impact. It should absolutely use CO2eq to show the overall cost of these carbon emissions. The difference is not some arbitrary factor of safety, it is the literal CO2 contribution from production, transmission, distribution, and final usage that otherwise goes unaccounted for in PSE's simple CO2 analyses.

Furthermore, improvements in measurement techniques are revealing much higher methane leakage from fracked natural gas than previously assumed. Beyond other problems with fracked gas (I'll save that for another testimony), these upstream emissions are not an insignificant trickle that can be ignored. They are a very real and present fact of natural gas usage. Disregarding this, whether in the interest of pushing a project forwards, or simply from using the wrong assumptions, is an unforgivable affront to good science and to the people of Washington and Oregon.

Thank you.

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