

Tad Anderson

Oh, great. So I'm Tad Anderson. I'm a retired climate scientist. And I'm for the most part, trying to come up to speed on this issue as we go through this process. I'm grateful that it's so open, transparent, and that it stretches out over a long enough time for hopefully for me to get a good understanding. My particular interest is in tracking this methane leakage issue, which is very controversial in the scientific literature. And I've been trying to familiarize myself with that literature.

So, I would urge the discussion on this to be centered around a simple equation that I've provided to Ecology, which calculates the effect of methane leakage—in terms of a leak rate, and a global warming potential—on the increase in carbon effective carbon emissions that you get from methane leakage adding to the entire carbon footprint of using or burning natural gas. There is a very simple way to look at that. And if you put if you plug in leak rates of one percent, and the global warming potential associated with a hundred year timeframe, you've got a pretty small effect about a ten percent increase in net carbon emissions.

If you put in a leak rate of five percent—or I should say, even lower than that maybe three point eight percent—and look at twenty year timeframe, you get an increase in effective carbon emissions of over one hundred percent, which makes natural gas worse than burning coal.

So, it's really important for us to have some process, or some methodology, or some principles for how we adjudicate this basically scientific controversy, so I would urge the rulemaking process to think about that. And, and in particular, to consider, are we going to be stipulating a kind of a best guess methane leakage rate or a 95% confidence methane leakage rate.

In other words, we can try to set it that leakage rate at a level where we have high confidence—say 95% confidence—that the actual leak rate is not greater than the one that's being specified.

So, that's basically my comment if I go through the IPCC greenhouse gas guidelines and just use their tier one, a numbers for all of the different processes associated with natural gas and add all those up in terms of a leakage rate for using kind of clean assumptions for how the natural gas delivery system is set up and using a best guess, I get a little under a one percent net leakage rate. But if I put in that sort of dirtier assumptions that are in the in the IPCC guidelines and use a 95% confidence threshold, I get over a 3% net leakage rate.

So, the truth is somewhere, it may be greater than that 95% confidence number because these things are being, re-analyzed all the time. But some kind of process, I think would be good to have in writing about how we're going to adjudicate this and whether we're gonna go for a best guess, or a 95% confidence number in the ultimate rules. Thank you.