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Stop Methane Emissions

We all know of the worldly issue called global warming. A huge cause of global warming is the emission and buildup of greenhouse gasses in the atmosphere. Carbon dioxide is the leading contributor to global emissions at 74.4% and methane is second at 17.3% (Our World in Data 2019). On August 16, 2022, President Biden signed the Inflation Reduction Act of 2022 which includes a charge that starts in 2024 at \$900 per metric ton of methane emitted and will raise to \$1500 by 2028 (CRS). This should introduce an incentive for facilities to update their plant, machinery, and equipment to emit less (or no) methane, or pay the fine. I think this is a good idea for the most part.

More CO₂ is produced, however methane (CH₄) is more dangerous because it is 28 times more potent. This means it is 28 times more efficient at trapping heat in the atmosphere. In 2019, 49.76 billion tons of greenhouse gasses were emitted (Our World in Data). This is up from 32.52 tons in 1990.

It would greatly reduce the external costs associated with methane emissions. Although prices of a lot of things will go up. In the U.S. the leading sources of methane emissions are from agriculture (livestock and manure management), oil and gas systems, landfills, and coal mining (EPA). As for Nebraska, 33% of emitted gasses are from agriculture and 14% of those gasses are methane from cattle.

Stored manure (later to be used as fertilizer) from animals such as cattle, swine, sheep, and goats emits methane over time. These animals also all emit methane through the digestive

process (the larger source in agriculture). Micro bacteria break down food in the stomach and produce methane as a byproduct. Nebraska is the state with the 2nd most cattle at 6.8 million head. There is a food additive developing right now called 3-NOP that is supposed to greatly reduce the methane produced in the stomach. If 3-NOP is effective, I think it would be the main requirement for farmers to implement into their animal's feed, or they would pay the fine. Feeding cattle less fat can help reduce the methane production. The impact of this would be an increase in prices of food because cows would yield less meat on each carcass, or take longer to grow to full size.

Methane is emitted during the production, storage, and distribution of natural gas and the production, storage, and distribution of crude oil. I think factories would have to implement some sort of methane capturing technology to reduce emissions, or pay the fine. Companies dealing in natural gas will also raise their prices.

Landfills produce methane as waste decomposes. Treating wastewater also produces methane.

I would say my overall evaluation of the policy would be 75% positive and 25% negative. The positive comes from the fact that I think this is probably the only way we can start reducing methane emissions. Companies aren't going to emit less or implement any sort of technology on their own because it costs money, and companies will do anything to save every penny. The negative part comes from the inflation, which is really bad for the economy, and I think a lot of producers will try to find loopholes at first.

My alternative would be to just simply tax any product in which methane is emitted when that product is produced, but that would just be a tax on pretty much everything. Otherwise, we

should just beef up the methane section of the Inflation Reduction Act so that nobody can jump through loopholes.

Prices of most things will likely rise, causing inflation, but overall I think it is a good idea considering we have a serious global warming problem. Methane is one of the most dangerous greenhouse gasses, and we should be getting it under control as soon as possible.

<https://www.everycrsreport.com/reports/R47206.html>

<https://www.epa.gov/ghgemissions/overview-greenhouse-gases#methane>

<https://ourworldindata.org/greenhouse-gas-emissions>