Stakeholder Comments MPSC RNG Study Case No. U-21170 May 3, 2022

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Thank you for this opportunity to submit our stakeholder comments, which will review a range of concerns regarding the RNG study and potential consequences.

1. Rigorous standards for carbon accounting and impacts on feedstock sources needed

Until there are defined and transparent standards to establish whether RNG actually achieves its carbon reduction goals, corporations will have a free hand in interpreting the value of its carbon offsets. In 2019, Dominion Energy claimed that its entire fossil gas supply would be carbon neutral if it procured biogas equivalent to just 4% of its total volume of gas sales, asserting that because RNG captures 25 times more greenhouse gas than it releases, that it will offset its customer carbon footprint by 100 percent.

Such claims, in particular those that rely on offsetting emissions that continue in the fossil gas system with claimed reductions elsewhere in the economy, must be held to rigorous standards



that support clean energy and emissions goals. These claims will fall short of carbon neutrality goals if substantial direct emissions of CO2 remain, and if offset accounting does not prevent double counting of negative emissions.

Another example of how carbon credits will be gamed by fossil fuel utilities is demonstrated by the slide that Consumer Energy shared with the MPSC at the April 20, 2022 Stakeholder meeting.

RNG slide from a 2019 Dominion ESG investor day presentation

Michigan Energy Composition by Scenario



It shows that the percentage of fossil gas within its Michigan gas pipeline composition in 2050 would range between 59% to 87%. RNG and other alternative gases have a significant role in the scenarios and presumably meet the utility's net zero emission target. In most climate mitigation models, fossil fuel gas by 2050 has been zeroed.

Fossil gas' net-zero pledges rely extensively on RNG as an offset scheme in lieu of electrifying homes and businesses with a truly decarbonized energy supply. At the tip of the burner, methane burns and produces carbon dioxide, an accumulating global warming gas that will determine how unlivable Earth will become.

The MPSC is the regulatory body that can develop such rigorous standards for carbon accounting.

2. Industrialized livestock industry, CAFO manure problem, and RNG carbon offsets

The MPSC already knows that CAFOs have a manure problem, largely stemming from the EPA decision to give agriculture a free-pass for its environmental impacts.

Until effective government regulation is in place to limit CAFO pollution, everyone will suffer from the CAFO manure problem: surface water and groundwater pollution from the nitrogen and phosphorus in the fresh manure and digestate manure, land application of manure requiring conversion of land to accommodate the increasing manure volume, eutrophication of especially Lake Erie and resultant methane-emitting algal blooms, odor, and health and rural community impacts.

ICF will not account for any of these impacts in its study as it does not consider any of them as costs.

Other states have moved ahead with RNG and monetized the manure, ignoring all of its environmental, health, and social impacts. In these states, the number and size of CAFOs have exploded because of government subsidies, incentives and the lucrative carbon offsets market, the monetization of misery.

The environmental, health, and social risks of CAFO manure will be compounded if new markets for biogas drive expansion of the manure supply for the explicit purpose of generating carbon credits. The local communities will bear all the risks and the Top 1% will gain all the benefits. Clear standards need to disallow biogas from these new feedstocks to claim carbon reduction credit.

Bear in mind that there are no CAFO size or density restrictions in Michigan, even in impaired watersheds. Comprehensive nutrient management plans based on manure "best management" practices and voluntary conservation practices are the industry's answer to nearly all concerns raised about CAFOs.

Recommendations:

- We call upon the MPSC to delay approving RNG derived from cow manure until the health, environmental, and social impacts of the manure are adequately addressed through effective federal and state regulation.
- We call upon the MPSC to assess the impacts that carbon-free credentials would have upon the production of feed for the livestock and the manure for the biodigesters.

3. Climate imperative

The Michigan Healthy Climate Plan calls for Michigan to reduce its GHG emissions by 52% by 2030, an even more aggressive target than the 43% reduction target of the IPCC. RNG is a distraction and impediment to effective climate mitigation. The MPSC needs to have a clear understanding of whether RNG actually mitigates climate change before it can make its recommendations to the state legislature.

ICF may deliver to the MPSC a GHG analysis similar to the one that appears in its Austin, TX report.¹ The Austin GHG Life Analysis (LCA) study does not identify boundaries, parameters, or an itemized accounting of GHG emissions for the processes and inputs from corn to end user (including leaks and wastes). We want to assess its models and assumptions, but it is not clear what they are.

If ICF excludes from its GHG Life Cycle Analysis (LCA) the biological units that actually create the manure (the feedstock and the cow) from its analysis and counts the manure itself as carbon neutral, its analysis would not account for the total GHG emissions of biogas.

The entire business model of industrialized meat production is based on cheap USDA subsidized crops, which are increasingly sensitive to climate change, as further explained in Point 4. If the

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https://static1.squarespace.com/static/53a09c47e4b050b5ad5bf4f5/t/5f3ababed0129c5534d9a9f3/1597684417452/200720+ICF+RNG+final+report.pdf

feedstock should become too expensive (failed harvests or loss of government subsidies), then CAFOs would close up shop. That level of manure's dependency on the feedstock makes the feedstock an integral component of the GHG LCA. ICF needs to do a supply curve for manure volumes under varying prices of feedstock for a true analysis of manure supply.

If the biodigestate (manure that comes out of the biodigester as a waste) is excluded, along with its ultimate fate as a driver in methane emissions of algal blooms, ICF would again put its thumb on the scale and misrepresent RNG's climate mitigation potential.

ICF's GHG LCA methodology for manure biogas does not account for increased GHG missions from inevitable CAFO expansions and new constructions spurred by lucrative carbon offsets.

Furthermore, carbon-free credentials of biogas rely on eliminating leaks. Direct emissions of methane in the US oil and gas supply chain produce a comparable warming effect to the combustion of the gas itself. In order to support alternative fuels, MPSC and customers must feel confident that these fuels actually reduce carbon emissions.

4. Feedstock uncertainties

A. Uncertainty one: Food vs. Feedstock

In Europe, around 10,000 tons of wheat – equivalent to 15 million loaves of bread – are burned daily as ethanol in EU cars even amidst a food shortages caused by the invasion of Ukraine. In Michigan, 46% of farm cropland is planted in corn and soybeans for fuel ethanol and livestock feed.

We already experience the impacts of climate fueled wars and harvest failures, which are spiking food insecurity. Climate change increases the risk of global food insecurity. Our response to this growing humanitarian crisis can go two ways. We can go the way of Europe and claim our right to biofuel for our cars and give feedstock precedence over food for people, or we can scale back on livestock feed and grow food for people. (Reminder, the livestock industry market targets the middle class as its price point is far beyond what the poor can afford.) If we choose to feed people, then the whole CAFO industrial model collapses as it will not have access to the highly subsidized and thus cheap feedstock crops.

B. Uncertainty two: Climate change causes reduced yields

Researchers are voicing growing concern that corn production is at high risk due to climate driven temperature and precipitation changes. Climate change may affect the production of corn and wheat as early as 2030 under a high greenhouse gas emissions scenario, the climate trajectory we are currently on, according to <u>a NASA study published in the journal, *Nature Food*². Corn crop yields are projected to decline 24% by 2030, while wheat could potentially see growth of about 17%. A 20% decrease from current production levels could have severe implications worldwide.</u>

² https://www.nature.com/articles/s43016-021-00400-y

Such a turn of events becomes ever more likely due to our climate inaction and will certainly strand the biodigester infrastructure assets, unless the powers that be decide that corn for meat production to benefit the few is more important than wheat to feed the many.

5. Financialization of a health, social, and environmental disaster

Industrialized livestock production has been found to be a climate and environmental disaster by many researchers. It is the primary driver in biodiversity loss through land conversion, soil erosion through feedstock production, the demise of middle sized farms, enormous animal suffering, the precipitous rise of metabolic diseases, and climate change.

RNG perversely attempts to monetize the waste of this disaster - manure. By claiming pretend climate mitigation benefits, investments will flow into purchase of RNG carbon offsets and their derivatives. Gas utilities will reach their net zero emissions by larding their portfolios with RNG carbon offsets, which will allow it to extend the life of the fossil gas industry.

The only actual RNG benefits will flow to large corporations and the Top 1%. The financialization of RNG carbon offsets will produce a powerful constituency focused on protecting its investments that will push back hard on any attempt down the road to undo what had been wrought.

RNG will squander time and resources on a pretend climate mitigation strategy while ignoring the planetary disasters driven by the industrialized livestock and fossil fuel industry. Is such the way of the world?

6. Rural impacts of RNG

John Hopkins Bloomberg School of Health³ studied the impacts of industrialized livestock operations on rural communities and found very unsettling results.

- As industrial consolidation increases, rural residents experience the loss of political channels through which they may have earlier voiced their concerns and influenced action. The interests of industrialized producers have a greater influence than citizens over decision makers.
- This economic loss of freedom and power imbalance have resulted in lower relative incomes for certain segments of rural communities and greater inequality and poverty. "Main Street" has experienced a decrease in retail trade and more store closings. CAFO workers earn about 60% as much as all wage and salary workers. Farms with gross incomes of \$100,000 spend nearly 95% of their expenditures locally, while "farms" with a gross income in excess of \$900,000 spend less than 20% locally.
- Communities where CAFOs dominate lose their social capital, the feelings of trust and interdependence. CAFO-dominated communities have a lower quality of life, greater poverty and crime, and lowered civic participation. Those living near a CAFO also have numerous public health issues attributable to the CAFO.
- Whatever benefits industrialized dairy and meat production accumulate from increased market power are not realized by affected rural communities. Industrialization draws wealth and life away from the very community they say they benefit. Rural Michigan is transforming from many small,

³ https://www.pcifapia.org/_images/212-8_PCIFAP_RuralCom_Finaltc.pdf

productive family farms and economically diverse, viable rural communities into a rural landscape of ever-growing industrial CAFOs and dying communities.

If the MPSC calls CAFO manure-biogas a feasible and achievable renewable energy resource, CAFOs will proliferate throughout the best farmlands of Michigan, wherever corn and soybeans are grown, to cash in on the incentives and subsidies. Gas utilities will crisscross rural communities with new pipeline construction to transport the gas to main pipelines.

7. Alternatives to RNG

A. The state requires waste water treatment facilities for large CAFOs

The average weight of a cow is 1200 pounds and excretes an estimated 125 pounds of manure daily. More than 1,000 cows are recommended for a large-scale biodigester. That size herd would produce 125,000 pounds of manure daily. Humans excrete about one pound of day.

Can you imagine Ann Arbor, Warren, or Sterling Heights being allowed to simply flush untreated human excrement into the waterway? Of course not. Yet we allow large CAFOs to flush their manure into our waterway, even though the livestock waste harbors the same pathogens as human waste.

If larger CAFOs were required to install wastewater treatment facilities, biodigesters could then capture the fugitive methane, just like they do for human waste water facilities.

B. Regenerative grazing

Keeping dairy cows within a regenerative grazing framework would solve the methane problem of CAFOs as the cow manure would then decompose aerobically.

C. Reduce number of livestock

Many researchers call for a steep decline in the number of livestock so that we can stay within the planetary boundaries of biodiversity, land use, nitrogen and phosphorus pollution, and climate change. This would reduce the amount of meat consumption, but it would also reduce the need for biodigesters. If we do not learn to live within planetary boundaries, then all becomes mute.

D. Reduce consumption of fossil fuels

In addition to the above alternatives is one option that the fossil gas industry wants us to ignore – actually reducing our consumption of fossil fuels by 52% by 2030. This is a major effort with enormous resistance, but one that will certainly bring us back from the edge of the climate abyss.

The people of Michigan need actual and significantly large reductions in the use of fossil fuels, not a pretend utility scheme to monetize the waste of industrialized livestock production to avoid what we must make happen.

We already live in a climate changed world. The question before you, before all of us, is how horrific we allow our climate future to become.