



05 May 2022

To: Virginia Halloran, Staff Lead for RNG Workgroup  
Michigan Public Services Commission (MPSC)

*Via email attachment*

Ms. Halloran,

Thank you for the opportunity to comment on the draft Renewable Natural Gas Study by ICF.

The ICF study is a good start in meeting the goals set forth by Public Act 87 and Case No. U-21170. However, after a detailed review of the ICF draft, we find that the current document does not address a core requirement listed on the MPSC RNG webpage<sup>1</sup>. Namely:

- Identify barriers to developing and utilizing RNG in Michigan.

Since 2019, Quantalux has provided technical support to RNG developers in Michigan. Our work has given us first-hand experience with barriers that result in excessive costs for RNG projects. This memo describes two major barriers that currently hinder RNG development.

### ***Barrier 1: Strict Oxygen Limits for MPSC Pipelines***

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Current tariffs for MPSC-regulated pipelines require that all gas entering the pipeline meet certain gas quality regulations.<sup>2 3</sup> Specifically, the tariffs require an oxygen (O<sub>2</sub>) content of less than 5 ppm (parts per million) for both DTE and Consumers Energy. This limit applies to RNG and is one of the strictest O<sub>2</sub> limits in the United States. Other pipelines in Michigan (regulated by FERC) have limits in the range of 2000-10,000 ppm.<sup>4</sup> A previous memo from Quantalux to the MPSC (dated 22 January 2022) described the strict O<sub>2</sub> limits in detail.

Excessively strict O<sub>2</sub> limits on RNG are a barrier to development because O<sub>2</sub> removal is complex and costly, adding approximately \$600,000 to \$1 million to the capital cost of a Michigan RNG facility. Furthermore, a de-oxygenation unit requires periodic replenishment of consumables, adding to the operational cost.<sup>5</sup> The high cost of O<sub>2</sub> removal is especially burdensome on the many smaller RNG projects that could be developed in Michigan.

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<sup>1</sup> <https://www.michigan.gov/mpsc/commission/workgroups/renewable-natural-gas-study-workgroup>

<sup>2</sup> Consumers Energy Company, , MPSC No.3, Rate Book for Natural Gas E3.1Gas Quality.

<sup>3</sup> DTE Gas Company, MPSC No.1, Rate Book for Natural Gas, E3.1 Gas Quality

<sup>4</sup> In many parts of Michigan, MPSC- and FERC-regulated pipelines operate nearly next to each other yet have substantially different O<sub>2</sub> limits.

<sup>5</sup> Cost estimates are based on actual purchases of de-oxygenation equipment by Quantalux customers

We recommend that ICF add a section that describes the negative impact of excessive O<sub>2</sub> limits in their report. ICF should also identify how other states have managed RNG in natural gas pipelines so Michigan can build on their success. The ultimate goal should be to find reasonable limits on O<sub>2</sub> content in RNG while also satisfying the pipeline operator's legitimate safety and operational concerns. (Note that Quantalux will be pleased to supply any information on this topic to the staff at ICF).

***Barrier 2: High cost to access existing natural gas pipelines:***

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RNG facilities need access to Michigan's natural gas pipelines in order to deliver RNG to their customers. Unfortunately, there has been a dramatic increase in the cost to connect to existing pipelines in Michigan. Ten years ago, a complete interconnection (meter station, pipeline, taps, etc.) cost less than \$1M. Our team now routinely receives estimates of \$2M to \$3M+ per connection with little opportunity for price negotiation with the pipeline owners.

For any group interested in building an RNG facility, the problem is not simply high costs, but also the lack of transparency as to how connection fees are determined. Developers understand that some changes in costs are inevitable, and these changes are accounted for in the project's baseline financial model. To accurately create that financial model (and to satisfy investors), justified costs for large-ticket items are essential.

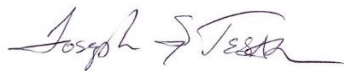
Lower costs and increased transparency will have a substantial positive impact on a project's overall financial picture. We recommend that ICF evaluate cost models that are transparent and consistent. For example, setting the cost of an RNG interconnection at "cost + 15%" would give the RNG industry confidence they are paying a fair and reasonable price. Better pricing will be especially beneficial to smaller RNG projects (typical for Michigan), which will lead to more small projects being built.

***Summary***

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This memo identifies two large barriers that currently hinder RNG development in Michigan. Our team believes that both barriers can be lowered using the regulatory tools available to the MPSC.

Thank you,



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