

Q&A

with Thomas Fox of
Highwood Emissions
Management

A number of certification methods are emerging, making it important to consider how standards for certification should be set.

To understand how current methods are setting standards and learn more about the way forward, we sat down with Thomas Fox of Highwood Emissions. Thomas shared his thoughts on a single certification method, intensity factors, certified premiums, and more.

The Future of Differentiated Gas

Q: The Highwood Emissions Voluntary Initiative Report refers to “emission factors” to set baselines. Do you foresee this as an enduring metric to establish certification?

Fox: Emissions factors are likely to become less relevant as measurement capabilities improve. A move to measurement-based metrics is desirable because emissions factors provide very little basis upon which to compare performance among different industry players given that everyone can use the same factors.

Q: Are metering methods sufficient for natural gas certification?

Fox: Metering systems are critical for measuring production and throughput but are less valuable for estimating leakage. My understanding is that metering systems are not sufficiently precise to estimate loss given the large volumes of natural gas transported and processed. Emerging certification programs are beginning to require highly precise estimates of performance metrics like methane intensity (i.e., emissions as a percentage of

production or throughput). Certificate grading systems sometimes distinguish among products based on fractions of a percentage point. Furthermore, measurement provides a second set of eyes that can provide additional information on where, when, why, and how much methane is entering the atmosphere.

Q: Do you believe a single certification standard will be set by the industry?

Fox: I think there will always be options, which is a good thing. Multiple standards create competition which fosters progress. Having different levels of rigor and disclosure also can create a ladder for participants to ease themselves into their emissions management journey, starting on lower rungs of the ladder and gradually working towards more stringent standards.

Q: What role do federal and state regulators play in setting standards and monitoring performance of the certified and responsibly sourced gas ecosystem?

Fox: Regulations are standards, and in some cases exceed standards. In some jurisdictions with especially strong methane regulations (e.g., Colorado, Alberta, and British Columbia) it could be that most companies achieve (or nearly achieve) certain certification standards by default, assuming they comply with the rules. Voluntary emissions reductions initiatives are, by definition, voluntary, so I don't see much of a role for regulators in monitoring performance within these frameworks.

Q: If a natural gas supplier achieves a certain certification level, will they be able to charge a premium for their certified gas regardless of whether their customer demands certification?

Fox: The producer will sell their product for the best price they can command. If there is no market demand for certified product then they will be forced to sell at the same price as everyone else. If there is a very high demand and a low supply, they could stand to make a significant premium. Remember that other incentives exist; producers will also attract investment by being certified and may even be able to participate in voluntary or regulatory carbon markets. .

Q: Do you think differentiated gas will eventually become the standard with penalties assessed for non-certified gas?

Fox: No. Regulators already impose penalties for certain types of behavior – and will continue to do so, likely in an increasingly stringent manner. Certified gas is a way to go “above and beyond” the regulations. Eventually regulations may strengthen to match current certification standards, but these standards will co-evolve to remain a step ahead of the regulations. Perhaps one day regulations will be stringent enough that certification is no longer required.

Thomas Fox is the President of Highwood Emissions Management, where he works with industry stakeholders, governments, and innovators around the world to help reduce emissions. Since earning his PhD in Smart Emissions Sensing Technologies, Thomas has specialized in evaluating methane measurement technologies, LDAR, and emissions modeling for the oil and gas industry. Thomas publishes the weekly Highwood Emissions Bulletin, which is a favorite information source of many in the industry.