The Oil and Gas Sector Needs to Tackle Its Methane Problem. Here's How to Track It.

The Oil Climate Index plus Gas (OCI+), an open-source interactive tool, offers powerful insights on the methane intensity of the world's oil and gas resources

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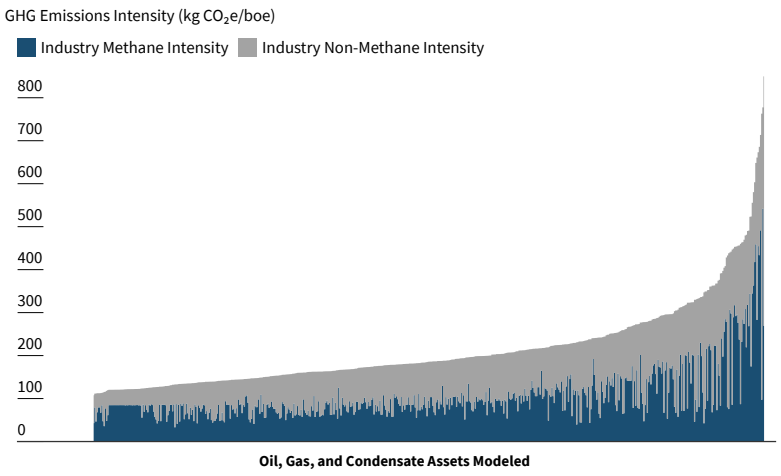
Methane is a powerful climate pollutant that heats our planet over 80 times more than carbon dioxide. The oil and gas sector is responsible for an estimated one-third of global methane emissions, therefore representing our most significant near-term opportunity to reduce emissions and slow global temperature rise.

RMI's cutting-edge interactive tool — the OCI+ — reveals the size, scope, and nature of the methane problem. As shown below, the methane emitted by the oil and gas sector is responsible for over one-half of all industry emissions—rivaling CO2. Depending on how oil and gas are extracted, processed, and transported, methane emissions vary by a factor of ten.

Cutting methane leakage can shrink oil and gas industry emissions

The updated OCI+ web interactive tool transparently assesses the emissions from two-thirds of the world's oil and gas supplies, offering the climate intelligence needed to identify new opportunities to manage methane. The OCI+ model can be used by policymakers, corporations, financial actors, academics, and civil society to identify drivers of emissions in the oil and gas supply chain and prioritize actions that can yield the greatest climate benefits.



Source: https://ociplus.rmi.org/

Key insights on methane from the OCI+ are as follows:

- **The oil and gas sector offers the No. 1 opportunity to cut methane.** The International Energy Agency reports that over one-half of oil and gas industry methane emissions can be profitably cut. Immediate steps to prevent methane leakage can also help bolster economic security amid market uncertainty. Openly certifying natural gas supplies by their methane leakage rates using protocols like MiQ can create new markets for less climate intensive oil and gas.

- **Satellites and remote measurements are making methane visible.** Atmospheric methane emissions have now reached their highest concentrations since measurements have been taken. Understanding where these emissions are coming from is a critical step to mitigating them. The good news is satellites, like those under development by the Carbon Mapper program, will be routinely and openly reporting methane super-emitters once they are launched in late 2023.

- **Leaky oil and gas systems warm the planet even more than coal.** Forthcoming studies of one million measurements find US oil and gas methane leakage rates range from less than 1 percent to over 9 percent. Other studies cite 25 percent methane leakage and more. When oil and gas systems leak 3 percent to 4 percent of their gas, they warm the climate more than coal. The Intergovernmental Panel on Climate Change (IPCC) finds that climatic warming from methane rivals carbon dioxide. Cutting methane now can help prevent each additional degree rise in the Earth's temperature and forestall progressively worse climate disasters.

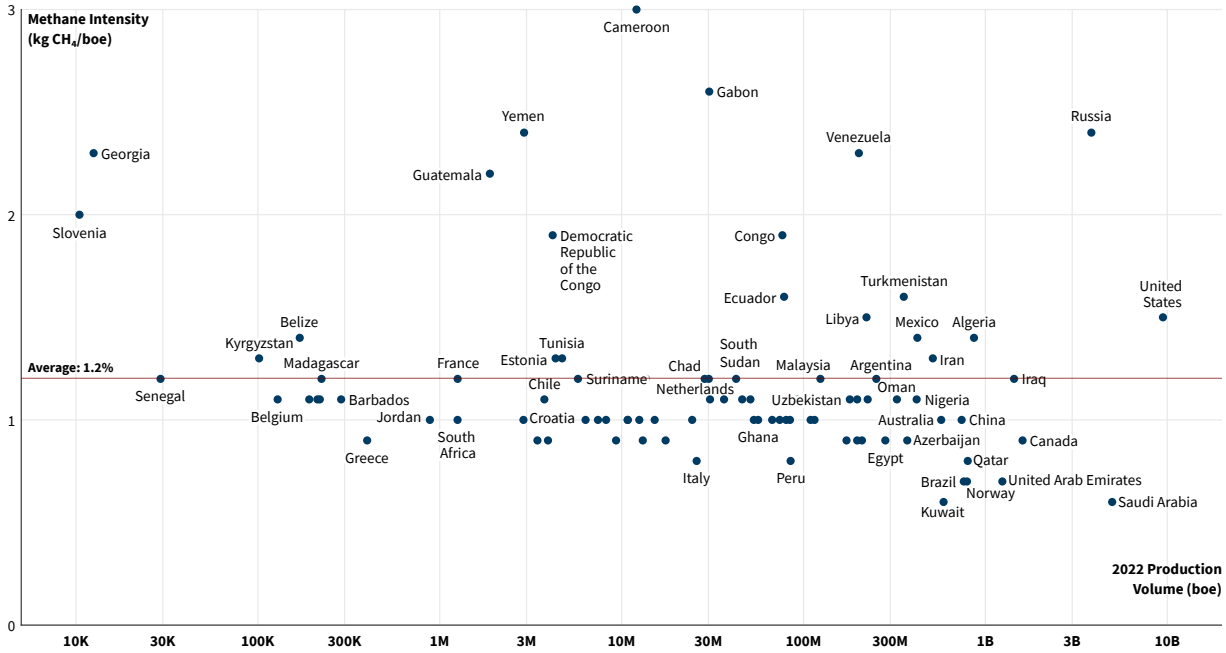
- **Strategically managing highly emitting oil and gas resources requires targeted climate action.** Given wide-ranging climate intensities of otherwise equivalent barrels of oil and gas, solutions rest on targeting the highest-emitting assets. Analyzing heterogenous oil and gas impacts offers companies, investors, policymakers, and civil society actors greater climate intelligence to safeguard our planet now as we reduce global dependence on fossil fuels.

Addressing Methane Meets Multiple Goals

Methane is co-emitted with numerous air toxins. In addition to preserving natural resources and mitigating climate change, cutting methane emissions is a critical environmental justice opportunity and can save hundreds of thousands of lives, according to the U.S. State Department.

To date, 150 nations have signed onto the Global Methane Pledge to reduce methane emissions 30 percent by 2030. Using the OCI+, we compare countries' 2022 estimated methane intensities and find them to be large and variable, as shown below. The climate intelligence provided by the OCI+ can help align the oil and gas sector with global methane targets as the clean energy transition accelerates in this decisive decade.

Comparing national methane intensities can help countries meet their pledges



Source: https://ociplus.rmi.org ; MiQ.org

ADDITIONAL RESOURCES

OCIplus.RMI.org

RMI.org/insight/kyog

NoStandardOil.com

We Need to Talk About Methane