



CASE STUDY

Colombia becomes first South American country to regulate methane from oil and gas

On February 11th 2022, the Colombian Ministry of Mines and Energy finalized its flaring and fugitive methane emissions regulations, which aim to reduce fugitive emissions from upstream oil and gas activities at a national level – making it the first South American nation to regulate methane emissions from oil and gas. This case study presents the steps taken to achieve this milestone and what are the major ingredients of this legislation.

Context

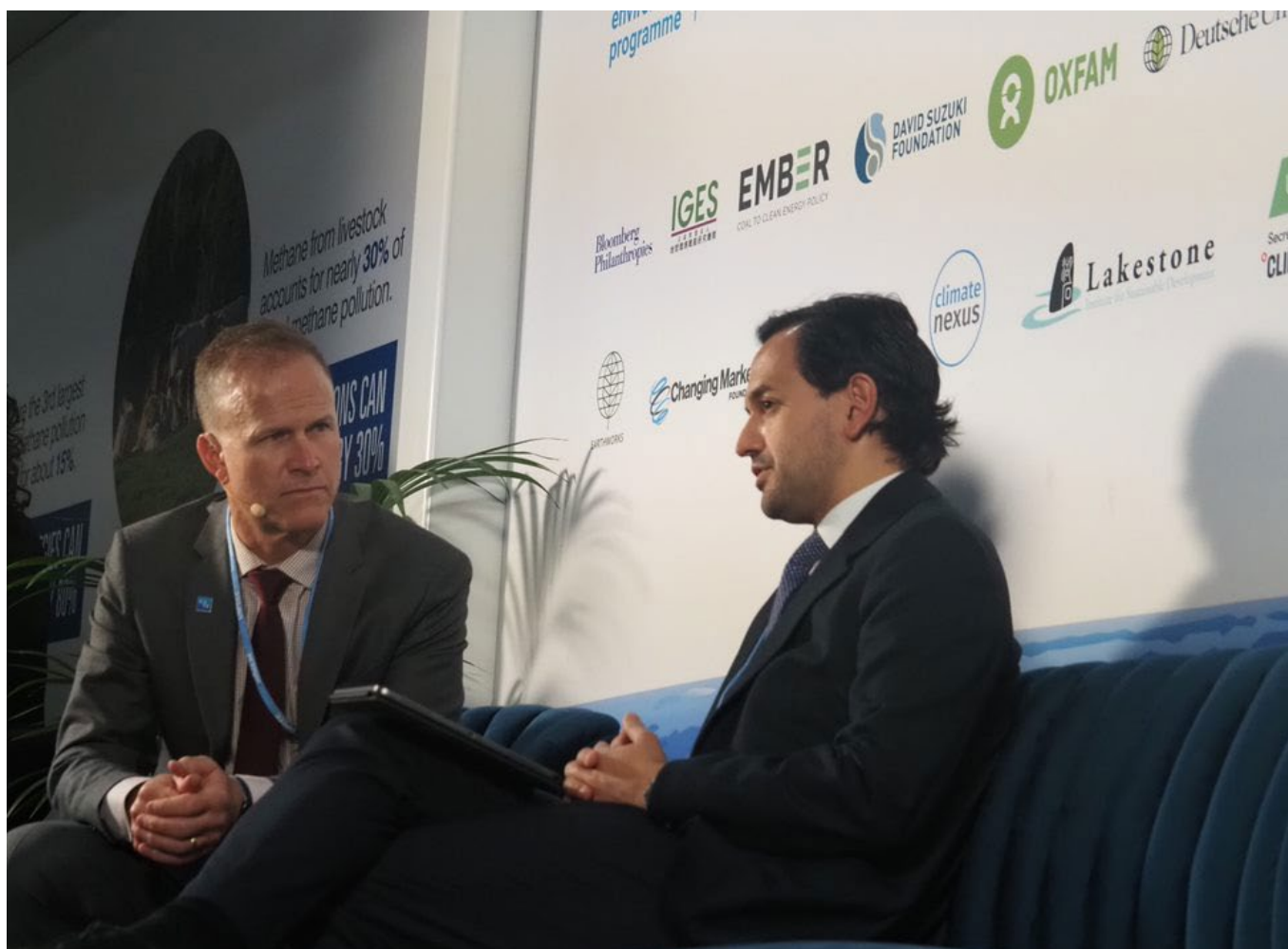
Colombia's leadership is the culmination of over five years of work by the Mines and Energy Ministry and other stakeholders and experts. It started by building [capacity](#) in late 2016, with a series of workshops and working group meetings on the issue of methane emissions in the oil and gas sector. This included an assessment of the best practices for reducing emissions on a source-by-source basis, as reflected by regulations in other parts of the world. The [Clean Air Task Force](#) (CATF) worked with the government to better estimate Colombia's methane emissions and to identify policy options to reduce methane through the use of CATF's CoMAT (Country Methane Abatement Tool).

In 2018, Colombia issued its first [strategy to mitigate short lived climate pollutants](#), with the government identifying the potential to reduce 129 kt of methane from both the coal mines and fugitive emissions in the upstream sector. In 2020, they issued a [revised NDC](#) that included the need to implement actions to reduce fugitive emissions from the oil and gas sector. Then in 2021, at COP 26 in Glasgow, Colombia built on these efforts by taking a leading role in the [Global Methane Pledge](#), which helped bring together over 110 nations agreeing to take actions to help reduce global methane emissions at least 30 percent from 2020 levels by 2030.

Methane emissions regulations

In 2022, Colombia issued fugitive methane emissions regulations. To reach these final rules, the Ministry of Mines and Energy took a unique approach by addressing both flaring and fugitive emissions in one regulation. This is significant because it recognizes that inefficient flaring of natural gas and malfunctioning flares have become a big source of methane emissions in the industry, and takes action to reduce them. Often these issues are treated separately, which can cause regulatory gaps or inefficiencies. This [new regulation](#) adopts some of the best practices seen in other jurisdictions and proposes implementing actions which include instructions to do the following:

- a. Carry out a [Leak Detection and Repair \(LDAR\) program](#) to inspect oil and gas facilities.
- b. Install vapor recovery units, redirect the gas for utilization or send gas to flare from existing gas driven pneumatic pumps or altogether replace them with electric or compressed air driven devices.
- c. Install vapor recovery units on tanks and separators.
- d. Redirect emissions from compressors, substitute seals and other measures.
- e. Carry out reduced emissions completions.
- f. Verify every year, through a third party, that flares are operating efficiently.



Colombian Minister of Mines and Energy, Diego Mesa Puyo,
with Jonathan Banks, Clean Air Task Force, at COP26 in Glasgow.

As the regulation moves forward and experience by both companies and the government regulator increase, there is an opportunity for further refinement of the standards to achieve even greater emission reductions. For example:

- a. Restrictions on flaring and venting could promote a greater utilization of associated gas through a flaring efficiency standard or a clear reduction goal.
- b. LDAR could be carried out four times per year and consider continuous emissions monitoring in the future. Currently it is only mandated two times per year.
- c. Colombia's government estimates that [natural gas demand will grow annually at a rate of 1.18%](#) at a national level. However, not all the demand will be met with locally produced natural gas because of a decrease in production and reserves, hence the [LNG infrastructure capacity is expected to expand](#). Regulations could take into account emissions from the entire oil and gas value chain.

These regulations are promising steps for emission reductions in Colombia, but implementation remains critical. The regulator, ANH ([Agencia Nacional de Hidrocarburos](#)), will start receiving data provided by companies, which could enable regulatory improvements. It will face the challenge of monitoring compliance and ensuring requirements are fully met by the industry.

Colombia's regulations contribute to growing momentum on methane leadership in South America, with Chile recently reducing waste sector methane as well, several other South American nations seeking to slash emissions in the oil and gas and the waste sector in the near future, and nearly every country in South America, including Colombia, joining the [Global Methane Pledge](#). We hope the [Oil and Gas Sector Toolkit for the Global Methane Pledge](#) supports continued South American leadership to cut methane emissions and help avoid the worst impacts of climate change.

Find out more

Clean Air Task Force



Clean Air Task Force's recent lessons learned report



CATF's Oil and Gas Country Methane Abatement Tool (CoMAT)



New Mexico policy case study



METHANE
GUIDING
PRINCIPLES

This case study was prepared and submitted by the Clean Air Task Force and does not necessarily reflect the views or positions of all of the Signatories and Supporting Organisations of the Methane Guiding Principles.