Moving to Zero Routine Gas Flaring in Colorado

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In 2015, the World Bank launched an initiative to help move oil and gas producers across the world to “Zero Routine Flaring” by 2030. There are now 32 governments that have endorsed the Initiative, covering more than 60% of global gas flaring. These endorsers include both the United States, as well as sub-national governments like the State of California (Fig. 1).
During oil production, associated gas is produced from the reservoir together with the oil. Much of this gas is utilized or conserved because governments and oil companies have made substantial investments to capture it; nevertheless, some of it is flared because of technical, regulatory, or economic constraints. As a result, thousands of gas flares at oil production sites around the globe burn approximately 140 billion cubic meters of natural gas annually, causing more than 300 million tons of CO$_2$ to be emitted to the atmosphere. Flaring of gas contributes to climate change and impacts the environment through emission of CO$_2$, un-combusted methane, and black carbon (soot).

The “Zero Routine Flaring by 2030” initiative (the Initiative), introduced and managed by the World Bank, brings together governments, oil companies, and development institutions who recognize the flaring situation described above is unsustainable from a resource management and environmental perspective, and who agree to cooperate to eliminate routine flaring no later than 2030. The Initiative pertains to routine flaring and not to flaring for safety reasons or non-routine flaring, which nevertheless should be minimized. Routine flaring of gas is flaring during normal oil production operations in the absence of sufficient facilities or amenable geology to re-inject the produced gas, utilize it on-site, or dispatch it to a market. Venting is not an acceptable substitute for flaring.
Governments that endorse the Initiative will (as Colorado already does) provide a legal, regulatory, investment, and operating environment that is conducive to upstream investments and to the development of viable markets for utilization of the gas and the infrastructure necessary to deliver the gas to these markets. This will provide companies the confidence and incentive as a basis for investing in flare elimination solutions. Governments will require, and stipulate in their new prospect offers, that field development plans for new oil fields incorporate sustainable utilization or conservation of the field’s associated gas without routine flaring. Furthermore, governments will make every effort to ensure that routine flaring at existing oil fields ends as soon as possible, and no later than 2030.

COLORADO

Colorado has been at the forefront of developing policies to regulate the oil and natural gas sector.¹ There are about 55,000 oil and gas wells active in the state according to the COGCC². The state is the 5th and 7th largest gas and oil producer in the USA.³ As nearly 80% of Colorado oil production comes from the Denver Julesburg Basin, and part of the Basin is located along the edge of communities north and east of metro Denver, there has been increasing tension between oil and gas drilling companies operating in close proximity to growing neighborhoods.

Colorado’s regulatory approaches have served as a model for many other U.S. states. An example comes from the development of world-class regulations on methane and volatile organic compounds (VOCs), which were designed over several years in partnership between government, industry, and NGOs. Such a long-standing and balanced dialogue is now required for other aspects of the industry. Now is an excellent time to consider endorsing this global initiative, and showcasing that leadership.

In 2017, global gas flaring at oil production sites dropped for the first time in several years. However, in some countries, like the United States, flaring increased. That’s not the case for all states in the United States. In Colorado, flaring has decreased considerably from a peak in 2013, but then rose again in 2017. There is still significant flaring occurring, primarily in the Denver Julesburg Basin where the bulk of oil is produced in the State (Fig. 2).

¹ See e.g., https://www.tandfonline.com/doi/full/10.1080/02646811.2016.1216696
² Colorado Oil & Gas Conservation Commission
³ https://www.eia.gov/state/analysis.php?sid=CO
Should Colorado choose to endorse the “Zero Routine Flaring by 2030” initiative, it would reinforce its stance that routine flaring should not take place when new oil fields are developed and that solutions should be sought for ongoing legacy flaring in the State. It would also send a strong signal to other states to do the same.

Figure 2: Colorado flaring volumes (Earth Observation Group @Payne)
ABOUT THE AUTHOR

This brief was authored by Bjorn Hamso of the World Bank. Bjorn Hamso was the program manager for the World Bank-led Global Gas Flaring Reduction Partnership, which manages the “Zero Routine Flaring by 2030” initiative that aims to end an oil industry practice that the world can no longer afford. Before taking on this position in 2013, Hamso managed World Bank investment projects in the gas and power industry in India, Pakistan, and countries in Europe and Central Asia. He had a long career with the Norwegian oil company Statoil, notably in marketing and negotiation of Norwegian gas to European buyers. He was director for Statoil’s marketing of electricity in Scandinavia before joining the World Bank in 1999. Hamso also has experience in the U.S. gas industry as a senior vice president for business development with Eastern Group Inc.

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