
Capterio Opinion Editorials in the

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Op Ed for the FT by  capterio

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Opinion: The current rate of gas flaring is unacceptable – and avoidable | By Mark Davis, chief executive of Capterio

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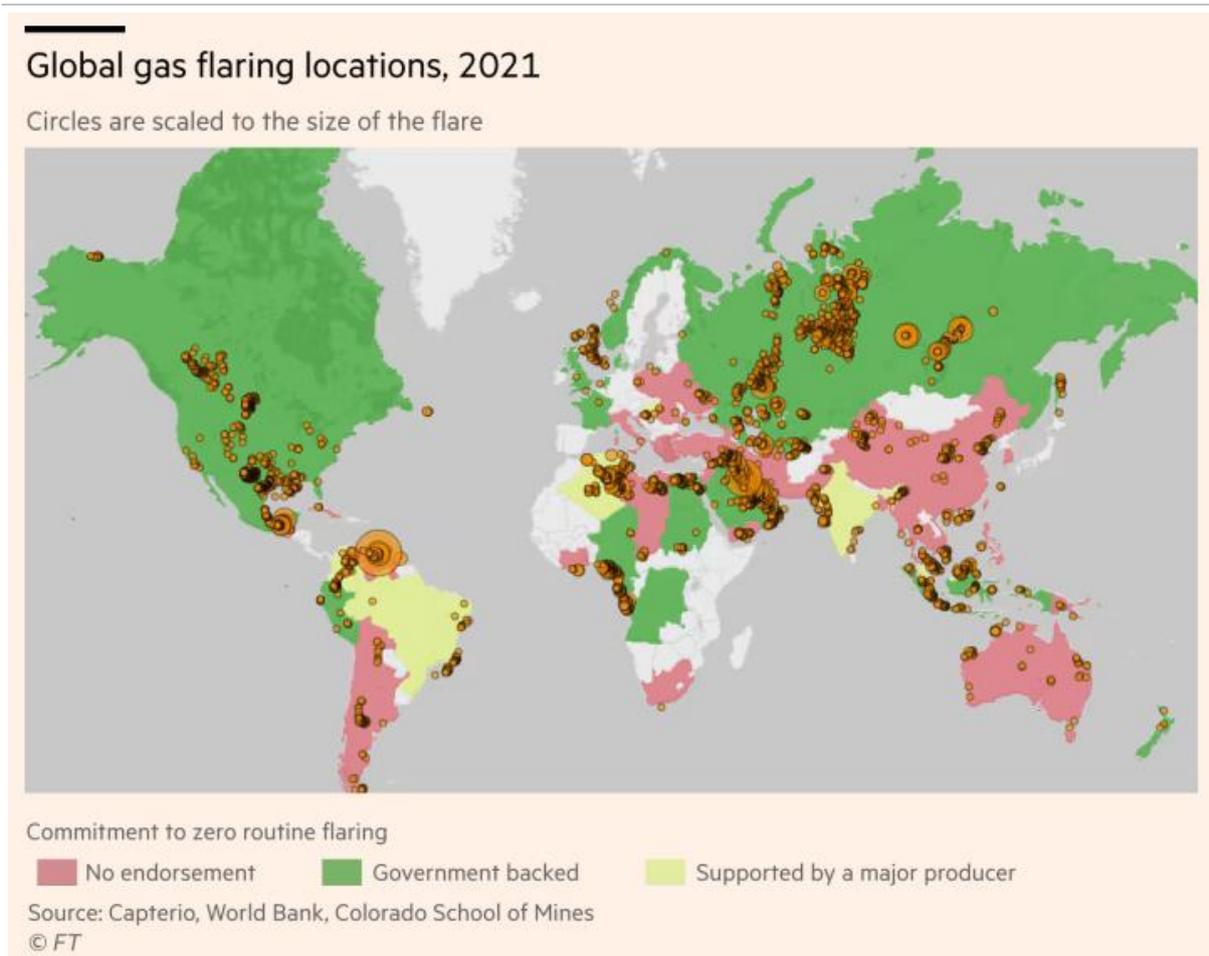
Last week's World Bank report on gas flaring revealed that a staggering amount of gas was wasted in 2021. A total of 143bn cu metres "was needlessly flared at upstream oil and gas facilities" — equivalent to more than 90 per cent of Europe's gas imports from Russia, or 1bn tonnes of CO₂-equivalent greenhouse gas emissions. At a modest gas price of \$7.50 per million British thermal units, that is also equivalent to almost \$50bn in lost revenues.

Despite lots of talk about ending wasteful flaring, volumes have fallen less than 1 per cent since 2012 — even though fixing the problem often makes commercial sense and, of course, reduces emissions. In a world of energy insecurity, sky-high prices, and the underlying climate crisis, this is unacceptable.

Flaring happens when companies would rather burn off the gas they produced alongside oil than conserve or use it — perhaps because arranging for it to reach a market would be expensive.

Flares emit not just CO₂ when the gas is burnt, but also other noxious gases, particulates and, from inefficient combustion, methane. Another problem is the leaking and venting of methane from energy infrastructure. Together, these sources amount to 6.6bn tonnes of CO₂e, or 36 per cent of the oil and gas industry's 18.2bn tonnes of CO₂ scope 3 emissions.

All of it is far too common. More than 10,000 flare sites are visible by satellite in over 80 countries, many of which have endorsed the World Bank's "zero routine flaring" by 2030 initiative.



We think industry commentators underestimate the CO₂e emissions from flaring too. Our figure of 1bn tonnes is 2.5 times greater than the World Bank’s. First, because we do not assume all flares burn gas with best-practice efficiency. We use a global average burn rate of 92 per cent, in line with the International Energy Agency’s estimate, versus a higher assumed rate of 98 per cent (which applies only to the most efficient flares).

Second, we think it more relevant to measure methane’s warming potency as 82.5 times greater than CO₂, over a 20-year period, compared with the industry’s more common measurement of 29.8 times the potency, over 100 years. The upshot is that the global goal of zero routine flaring looks increasingly unreachable, creating doubt about many oil producers’ “net zero” commitments.

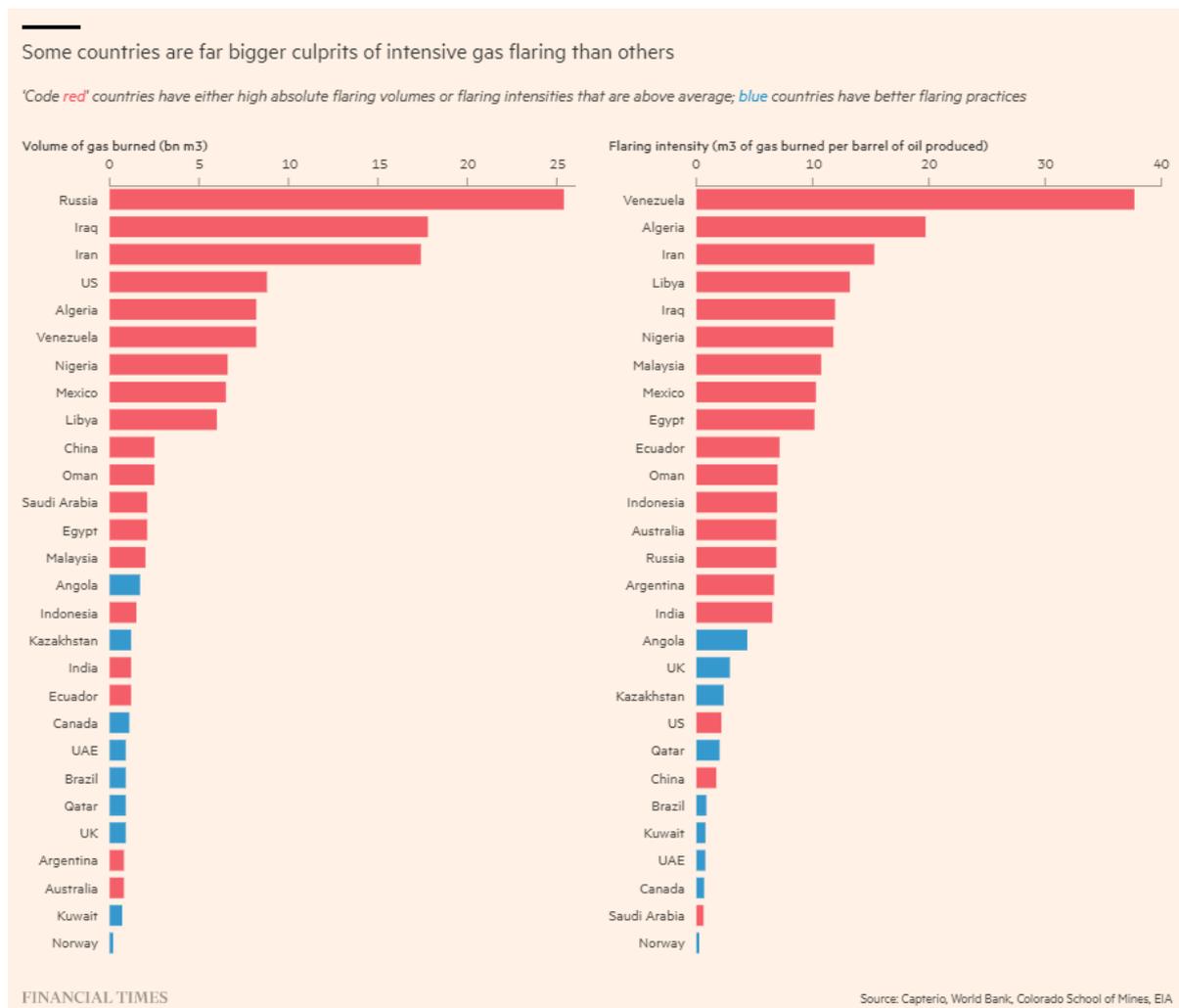
But it is not too late. The Oil and Gas Climate Initiative, which includes supermajors such as ExxonMobil and Shell, as well as state-run companies like Saudi Aramco, notes that “virtually all methane emissions from the industry can and should be avoided”, and that flaring remains “one of the best short-term opportunities for contributing to climate change mitigation”.

The solutions are manifold: reinjection of the gas into the ground, piping it to markets, or using it for power or even to create liquids — not to mention “exotic” solutions such as cryptocurrency mining or vertical farming. But the industry needs to act now.

The global league tables below offer the transparency and focus the sector needs. They show that 19 countries, covering 85 per cent of flared volumes, are considered “code red” — those with high absolute flaring volumes, or those with above-average “flaring intensity” (defined as gas flaring per barrel of oil production).

On flared volumes Russia, Iraq, Iran, US, Venezuela, Algeria and Nigeria dominate. But on flaring intensity, Venezuela, Algeria, Iran, Iraq and Nigeria are particularly egregious. Each of these nations are well-known to be beset by operational challenges and tricky business environments.

By contrast, however, Norway and Saudi Arabia show us what is possible on flaring intensity, when government enforces strong anti-flaring policies.



There are some hopeful signs from the World Bank and Capterio’s analysis of the 2021 data. The US, Algeria, Nigeria, Egypt and the UK had significantly lower flaring in 2021 compared to 2020, driven mainly by improved operational performance. But sadly these gains were almost exactly offset by increases in Iran, Iraq, Libya, Mexico and others.

At a moment when energy security and the climate are both in crisis, the industry must not miss an opportunity to pluck such a low-hanging fruit. Tackling gas flaring would lower emissions, reduce pollution, and generate revenues to reinvest in the energy transition. Our biggest challenge is to mobilise capital and deliver on-the-ground impact in the hard-to-influence countries where flaring remains such a problem. We have had lots of talk and commitment — but now is the time to act.

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Opinion: Tackling flaring is a huge market opportunity

By Mark Davis, chief executive of Capterio

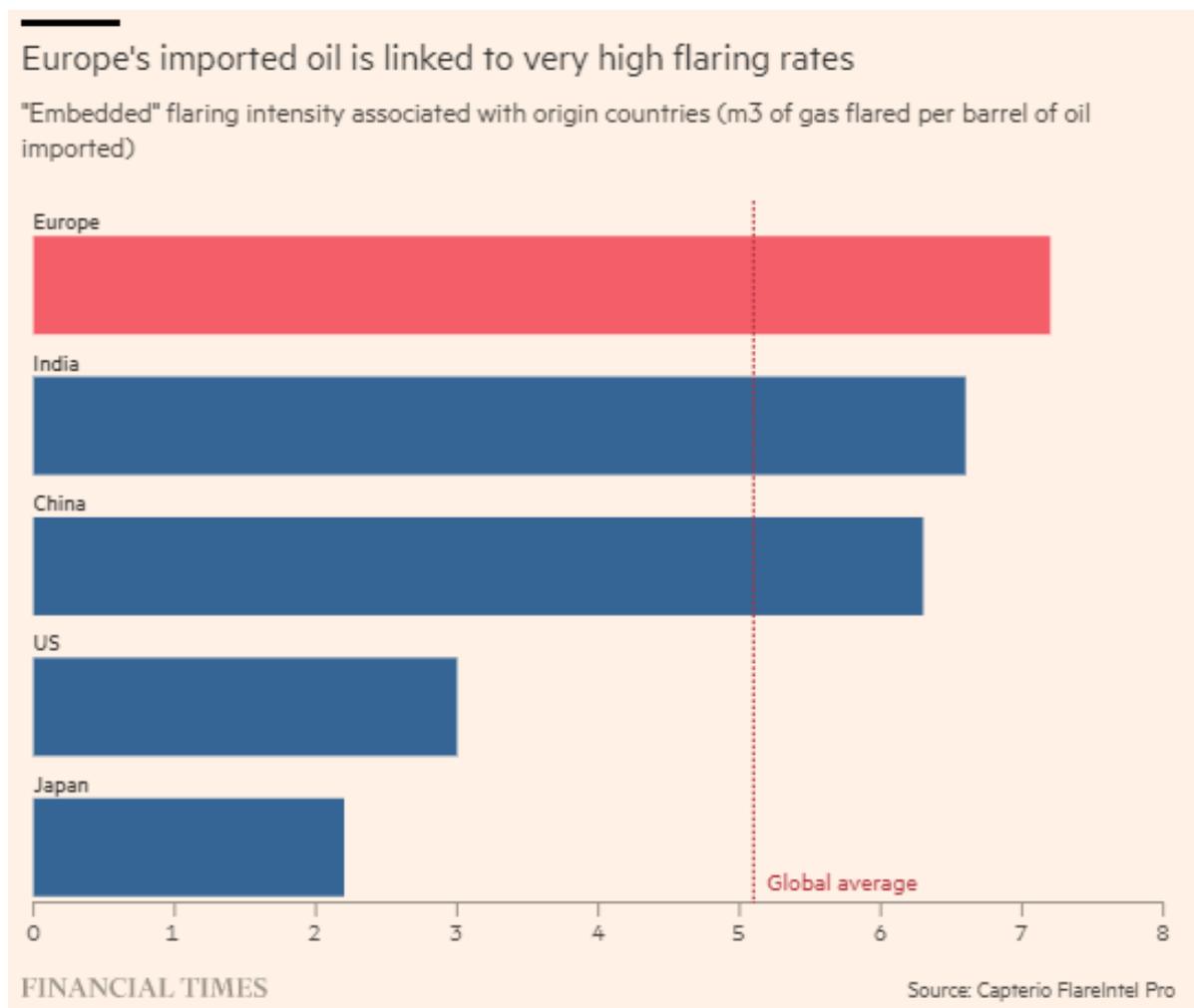
19 May 2022 | [link to original article](#)

Clamping down on flaring is not only a climate imperative, it is also a positive opportunity to get more gas to market and plug the gap left by lost Russian volumes.

Last week, we showed how much natural gas was being needlessly flared around the world: 143bn cu metres in 2021.

Capturing all this gas (as over 100 governments, companies and banks have committed to by 2030) and rerouting it could in theory replace almost all Europe’s gas imports from Russia. As much as 15 per cent of this is even on its doorstep, in north Africa.

There is also another reason why Europe should support flaring reduction.



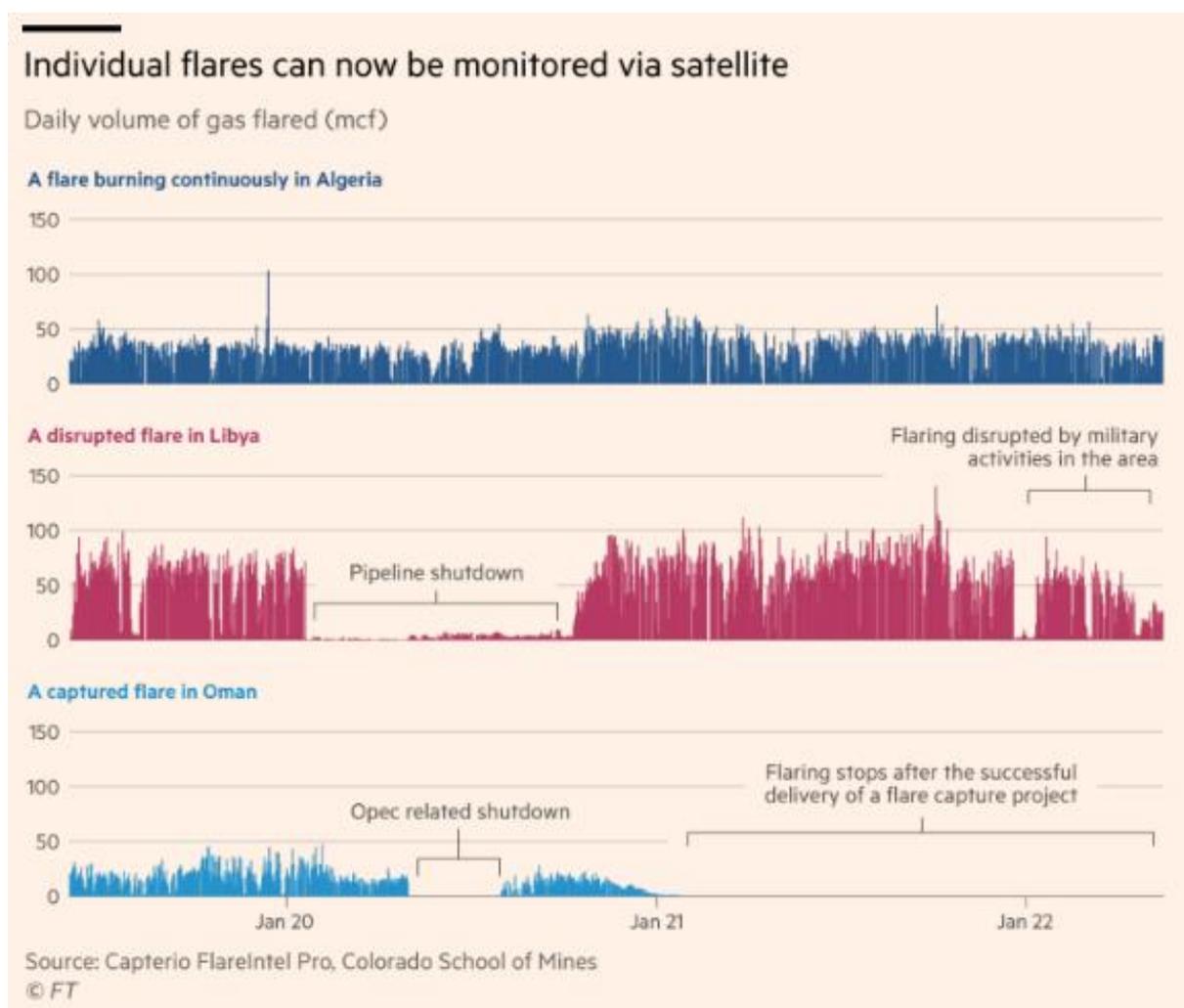
Despite its climate leadership, Europe’s oil imports have “embedded” flaring emissions — those associated with the oil production in its supplying countries — that are 40 per cent higher than the global average.

Europe’s embedded flaring emissions are high because large volumes of oil come from countries with high flaring intensities (Algeria, Libya, Iraq, West Africa and Russia). The situation could worsen as Europe scrambles to replace Russian crude. But a solution is possible.

Data dilemma

The first hurdle to fixing this is a lack of data: flaring has typically been underestimated, under-reported, ignored and sometimes denied. Although most flares are not actually metered, satellites can be instrumental. Flares can now be screened by their size, reliability and proximity to infrastructure to identify the best investment targets.

Take the chart below.



Operator PDO successfully — and profitably — eliminated all flaring at Oman’s Sadad North field, in early 2020, by installing new gas separation equipment, processing facilities and interconnecting piping to recover 20-30mn cu feet per day (\$300mn per year at today’s prices).

By contrast, in Algeria's Illizi-Ghadames basin, a single field flares 30-40mn cubic feet of gas daily. According to a Capterio study, with a modest investment in pipeline segments and gas compression, recovered gas could generate revenues of \$430mn and reduce emissions by at least 1.2mn CO₂-equivalent tonnes annually.

The fix

To capture this opportunity, we need to build a collaborative system of policy and practice.

Regulators also need to think carefully about policies, incentives, subsidies and taxes. Punitive flaring taxes (such as Norway's, which are equivalent to \$61 per tonne of CO₂) work. Nigeria and Algeria have similar anti-flaring laws and taxes, but regulators are failing in enforcement.

But broader policies and behaviours that engage the hard-to-influence countries are important too. Governments, like the EU, are increasingly looking to carbon border adjustments for imported emissions. Equally, they should recognise their shared responsibility to reduce flaring in supplying countries, by offering collaboration, capabilities and cash.

Consumers will become more choosy by buying energy certified with lower emissions, and voluntary markets are already developing — ahead of regulation.

Equally, shareholders and lenders are demanding more transparency, especially for "non-operated" assets (where there is currently no disclosure requirement) and as emissions get transferred when ownership changes. Funders need to, selectively, mobilise capital (versus blanket "no fossil fuel investment" policies).

To help facilitate this change, governments should create data-driven flare reduction road maps. Operators must explore all possible flare capture methods (piping gas to market, using it for power, creating liquids, or even "exotic" solutions such as cryptocurrency mining or synthesising fish food).

Second, for as long as flares operate, they must have high combustion efficiency (therefore minimising methane emissions). And, thirdly, monitoring programmes need to be boosted.

Flaring reduction is a win for producers, governments and society. We must seize this low-hanging fruit and reduce emissions, create value and accelerate the energy transition.