
THE METHANE MANIFESTO

How Europe can rapidly
reduce Methane Emissions
and Phase out Fossil Fuels



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INTRODUCTION

The European Union, one of the largest importers of fossil fuels in the world, wants to quickly wean itself off its largest supplier of these dirty fuels, Russia.

In the height of a war, and an energy crisis which is further worsening the energy precarity problem for millions of households across Europe, it's imperative that we overhaul our energy system at large to ensure that actions taken now are for the benefit of both people and planet.

The European Commission's REPowerEU plan¹ identifies moves to end Europe's dependence on Russian fossil fuels before the end of the decade. **Unfortunately, the Commission fails to effectively break with dirty energy sources of the past and runs the risk of overlooking the powerful role that methane emissions will play in exacerbating climate change through continued reliance on fossil gas.** While the Commission aims² to tackle methane leaks from gas supplies alongside the creation of new *you collect/we buy*³ scheme, it fails to acknowledge the devastating climate impact of Liquefied Fossil Gas (LNG) in terms of greenhouse gas (GHG) emissions. Instead of delivering on a clean, fair, and renewable transition, the Commission keeps fossil fuels alive and lends a helping hand to fossil companies. Yet we know that:

- We **cannot afford** to remain dependent on dirty fossil fuels
- We **cannot afford** the continuous emission of greenhouse gases.
- We **cannot afford** to take actions now, to satisfy short-term concerns, which lock us into fossil fuels in the long term.

Getting out of Russian fossil fuels is only part of the challenge; the true challenge is dropping fossil fuels altogether. Slashing methane emissions alongside other GHGs will be crucial for the climate in the short term, but it is simply not enough in the long term. Addressing methane emissions does not make fossil gas and oil clean.

Over a 20-year period, **methane has a global warming potential (GWP) that is 84-86⁴ times greater than carbon dioxide.** This means methane, the main component of fossil gas, is a climate super pollutant that has a higher short-term impact than CO₂ and its concentration in the atmosphere is **nearly three times greater** than pre-industrial levels⁵ and is rising. In 2021 alone, energy-related methane emissions rose globally by nearly 5%⁶ and over the past two years the atmospheric burden of methane has increased more rapidly compared to all previous measurements recorded since 1983.⁷ This is totally our fault! At the global level, **60% of methane emissions are due to human activities.**

Yet we have an opportunity to address not only methane that escapes in our energy systems, but to address the root cause of the problem: fossil gas.

This manifesto is a **clear call for decision-makers to drastically improve the proposal⁸ for a regulation on methane emissions reduction in the energy sector** and to amend Regulation (EU) 2019/942 in order to **deliver a fossil free European Union by 2035 at the latest.** By 2035 the use of fossil fuels, including fossil gas, will be incompatible with the commitments to limit global temperature increase made in the Paris Agreement⁹. Consequently, there can be no place for fossil fuels, including fossil gas, if we want to effectively cut GHG emissions.

THE COMMISSION'S METHANE REGULATION PROPOSAL

On 15 December 2021, the European Commission presented a proposal to regulate methane emission reductions in the energy sector, as part of the Fit for 55 package. Notably, the regulation aims to cut methane emissions from fossil gas, oil, and coal sectors. The text includes four key **domestic** measures for the oil and gas sectors:

- **Measurement, Reporting and Verification (MRV):** measurement and reporting is built on the Oil and Gas Methane Partnership (OGMP) 2.0 framework. The proposed rules would require mandatory reporting for companies of source-level methane emissions, which within 2 years of the entry into force of the Regulation, shall be conducted on site.
- **Leak Detection and Repair (LDAR):** oil and gas companies are required to carry out comprehensive surveys to detect and repair methane leaks in their operations. The proposal, in particular, includes mandatory LDAR surveys every 3 months, with deadlines for repair and resurvey.
- **Ban on routine venting and flaring (BRVF):** the proposal outlines a ban on routine venting and flaring practices, with a list of specific exceptions that are driven by safety concerns.
- Finally, the text foresees **measurement and reporting obligations, alongside mitigation plans for abandoned and inactive oil and gas wells.**

On **imports**, the proposal takes into consideration only light measures to ensure transparency and **fails to extend domestic provisions** on MRV, LDAR and BRVF for energy imports. Namely, the Commission only envisages the creation of two transparency tools. A publicly available transparency database would aim to collect information on measures related to "measurement, reporting and mitigation of methane emissions undertaken by exporters, in particular the application of regulatory or voluntary measures to control their methane emissions".¹⁰ Additionally, the Commission foresees the set up of a global monitoring tool to show methane emissions hot-spots at the EU and international level. As a second step, the Commission leaves open the possibility of revisiting the regulation in 2025 to implement more stringent measures.

The **Commission proposal doesn't include a reference to a fossil fuel phase out.** While the regulation might help to reduce methane emissions in the short term, **without concrete plans to phase-out fossil fuels in the long term, we believe it misses the point** and might even be subject to abuse for greenwashing by fossil fuel companies.

THE ISSUE

Curbing methane emissions, within a broader and clear framework of fossil fuel phase-out, is:

AN ENVIRONMENTAL ISSUE

The last Intergovernmental Panel on Climate Change (IPCC) assessment¹¹ on the mitigation of climate change shows that limiting global warming requires global greenhouse gas (GHG) emissions to peak before 2025 in order to maintain the global temperature increase to around 1.5°C. In this regard, **fixing methane leaks will be crucial in the short-term**, if we want to meet the EU 2030 climate targets and cut GHG emissions by at least 55%.¹² However, this will not be enough unless we also enact ambitious phase-out plans for fossil fuels on the whole.

Fossil fuel production, distribution and use is estimated to emit **110 million tons** of methane **annually**.¹³ In particular, fossil gas production is responsible for the increase of two-thirds of global methane emissions between 2008 and 2014, and shall gas produced by **hydraulic fracturing** or fracking process accounts for half of this increase.¹⁴ Yet methane is leaked across the whole value chain from production to storage, through equipment designed for venting and flaring, resulting in the release of several dangerous chemicals and compounds such as methane, carbon dioxide, benzene and volatile organic compounds (VOCs). VOCs are key precursors for the formation of another greenhouse gas known as **ozone** in the lower atmosphere.

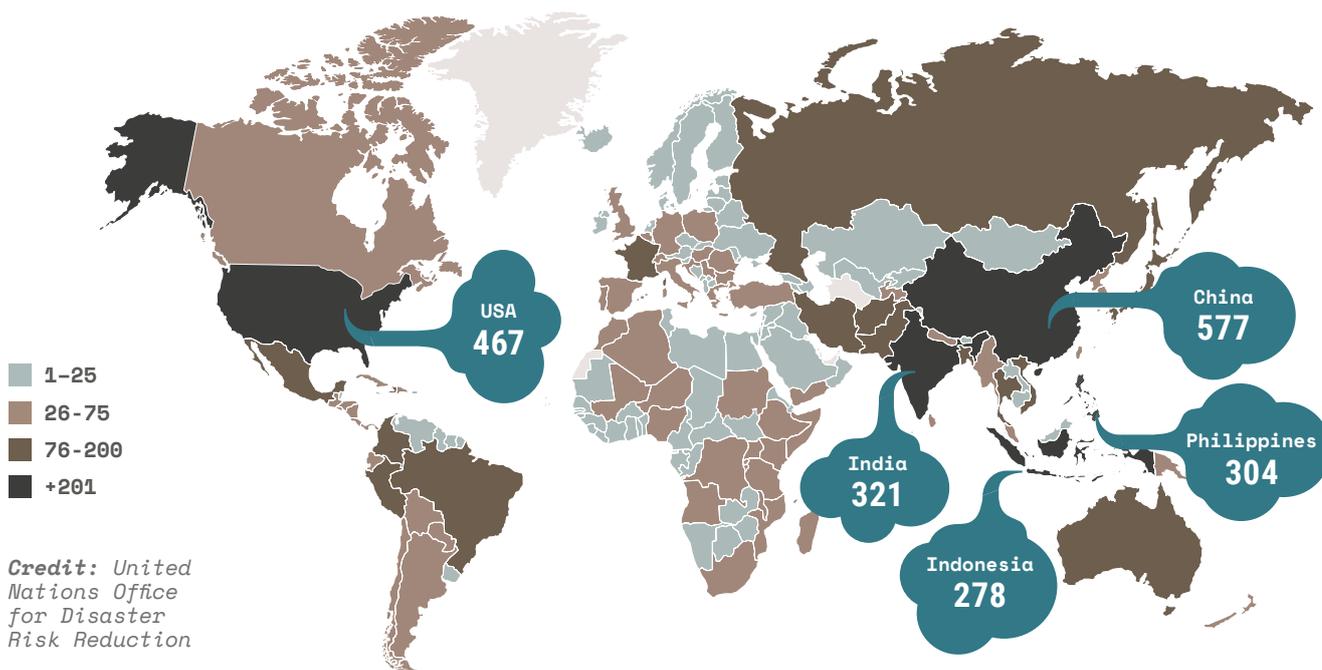
Along with the fossil gas operations, oil and coal sectors contribute significantly to methane emissions. In particular, the world's operating coal mines emit 52.3 million tonnes of methane per year,¹⁵ more than either oil or gas. Methane is present in coal formations and it is released through mining activities, but even abandoned and closed mines release methane from diffuse vents, fissures in the ground or boreholes. Methane emissions in the oil sector occur during all phases of drilling and production.

As Earth sits on the precipice of several climate tipping points due to an increase of GHG levels, in large part also due to methane emissions deriving from human activities, methane's impact looks set to get worse. The very real threat of melting ice caps is a ticking time bomb capable of driving the release of enormous amounts of methane into the atmosphere¹⁶ that are currently trapped in the ice, resulting in sudden destructive warming.

The oil and gas industry severely affects biodiversity and the ecological status of water systems, including groundwater and drinking water. It contributes to polluting water systems and draining fresh water reserves for use in fracking processes, which further limits affordable access to clean water. Solid fossil fuel production and distribution (through the construction of extremely costly pipelines) also exerts enormous pressure on soils and marine environments. Coal waste and fossil gas and oil wastewater are also a real threat to our environment and climate, waste which is often toxic and hazardous to the environment and human health.

Reducing methane emissions will not contribute to environmental restoration or protection, nor a reduction to the rising temperatures as a result of climate change; only a fossil fuel phase out can achieve this.

NUMBER OF NATURAL DISASTERS REPORTED PER COUNTRY/TERRITORY (2000-2019)



Climate change and increasingly extreme weather events have caused a surge in natural disasters. According to UN Environment Programme (UNEP), methane emissions account for roughly 30% of global warming since pre-industrial times.

A HEALTH ISSUE

The health impacts of burning fossil gas are extremely serious.¹⁷ Methane is a precursor of ozone, and **increasing levels of methane emissions are strictly linked to the rise of ozone in the atmosphere.** Ozone is toxic for the environment and human health and considered responsible for around **1 million premature deaths** per year¹⁸ due to its links to many respiratory diseases (including asthma, reduced lung function and chronic lung diseases). According to a report from the Climate and Clean Air Coalition (CCAC) and the United Nations Environment Programme (UNEP)¹⁹ for every million tons of methane emitted, there are **1430 premature deaths due to ozone.** Considering that in 2021 the energy sector alone has emitted 135 million²⁰ tons of methane, that equates to 193,150 premature deaths.²¹ Ozone-related health impacts are particularly dangerous for children, who are most likely to be active outdoors and are still developing their lungs as well as elderly people who often have preexisting conditions. In Europe, 33% of new childhood asthma cases are attributable to air pollution.²²

Additionally, methane is an ever-present **threat to air quality inside our homes** due to the widespread presence of gas boilers, gas furnaces and gas stoves. These emit methane along with other pollutants through post-meter leaks and incomplete combustion. In particular, more than 30% of energy²³ used for cooking in EU homes comes from fossil gas, and even when turned off a gas stove releases methane.²⁴ This is why just fixing methane leaks does not represent a solution, fossil fuel phase-out is needed to enhance outdoor and indoor air quality, and protect human health.

A SOCIAL JUSTICE ISSUE

Methane emissions and fossil fuel pollution, in general, disproportionately impact marginalised and already vulnerable communities who are the most common nearby inhabitants of fossil fuel infrastructure, or already facing the first wave of climate catastrophes. In the U.S., 17.6 million people²⁵ live within one mile of an active oil or gas well. Most of them are low-income, indigenous and Black/Afro-American people, who are more exposed to fossil fuel-linked air pollution. By failing to address the root cause of methane emissions - fossil fuels - and failing to legislate on methane emission reductions across the full supply chain, Europe remains responsible for maintaining and deepening the adverse impacts of fossil fuels on low-income communities around the world. **Europe continues to fuel climate change and its associated social injustices, while those who contributed the least to the climate crisis endure the direct health, social and environmental impacts from it.**

As the effects of climate change worsen, the impacts will be felt strongest by those who are already vulnerable, marginalised and low-income. Rising GHG emissions will have severe and disproportionate consequences that threaten the well-being, rights and the lives of millions. **Climate change could push 120 million more people into poverty by 2030**, especially in poor regions and countries,²⁶ leading to forced migration, worsening health, and the exacerbation of structural injustices. In Europe, estimates from the IPCC report point out that "warming will continue to rise faster than the global mean, widening risk disparities across Europe in the 21st century".²⁷ This would put further pressure on the most vulnerable sectors of the population, and on the southern European regions.

Moreover, fossil gas and oil imports in the EU are highly dependent on undemocratic, politically unstable and corrupt regimes, with well-documented human right violations. The transition from a fossil-fuel dominant system to one based on renewable sources greatly improves the capacity of advancing democracy, social justice and peace. Moving away from fossil fuels that tend to concentrate economic and political power in the hands of few actors decreases our dependence on undemocratic regimes, opening up new room for manoeuvre.

Simply plugging and detecting methane leaks will not provide a permanent solution to all the very present social inequalities fuelled by fossil fuels, in fact, it would allow them to continue getting worse.

THE COST OF GAS

Right now, Europe is battling an energy price crisis that impacts the already energy-poor across the continent. As a result of geopolitics, low gas storage, maintenance delays, the COVID-19 pandemic and weather extremes, our gas supplies are short, and energy costs have skyrocketed. Russia's invasion of Ukraine introduced even greater uncertainties with further rising prices and gas supply disruptions. **Over 80 million Europeans were said to be at direct risk of energy poverty this past winter,**²⁸ and this issue will likely remain going into next winter.

This price crisis has not hit everyone equally, however, and the fossil fuel industry has reported record profits while numbers of Europeans in energy precarity have grown. Therefore, immediate protections for the energy vulnerable and windfall taxes on the exceptional profits of energy companies linked to surging gas and power prices will be crucial for providing direct support to people now, while also supporting renewable energy resources in the short term. In the long term, Europe needs **a just and rapid transition away from fossil fuels and their associated emissions, or it risks locking the energy poor into a fossil fuel dependence** that they neither deserve, want, nor can afford.²⁹ Paying through the roof for dirty, emitting fossil fuels is not only unjust and unsustainable, it's dangerous for both the planet and human health.

AN ECONOMIC ISSUE

Cutting methane emissions, within a long-term fossil fuel phase-out objective, would provide economic benefits. The IEA estimates that 45% of methane leaks could be avoided at no-net cost for oil and gas companies because of the value of captured gas³⁰ so there is really no excuse for not doing this already. Additionally, **cutting 45% of human-made methane emissions by 2030 would allow the prevention of 73 billion hours of lost labour from extreme heat and 26 million tons of crop losses globally each year**³¹ bringing clear financial advantages to our economies. The economic benefits of every ton of methane being reduced amounts to 2018 US\$ 4300.³² Overall, the economic benefits of slashing methane emissions for society clearly outweigh the costs.

However, methane emissions are only part of the problem, this is why **a transition to a 100% renewable energy system can provide multiple substantial and long-term economic and climate benefits.** By ending investments in fossil fuel projects and promoting energy savings, energy efficiency, and renewables, Europe can reduce energy bills and its dependency on energy imports, create more green jobs, new business opportunities, and avoid stranded fossil fuel assets.

Decision makers must hold the fossil fuel industry accountable for cleaning up the mess they created, and paying for it.



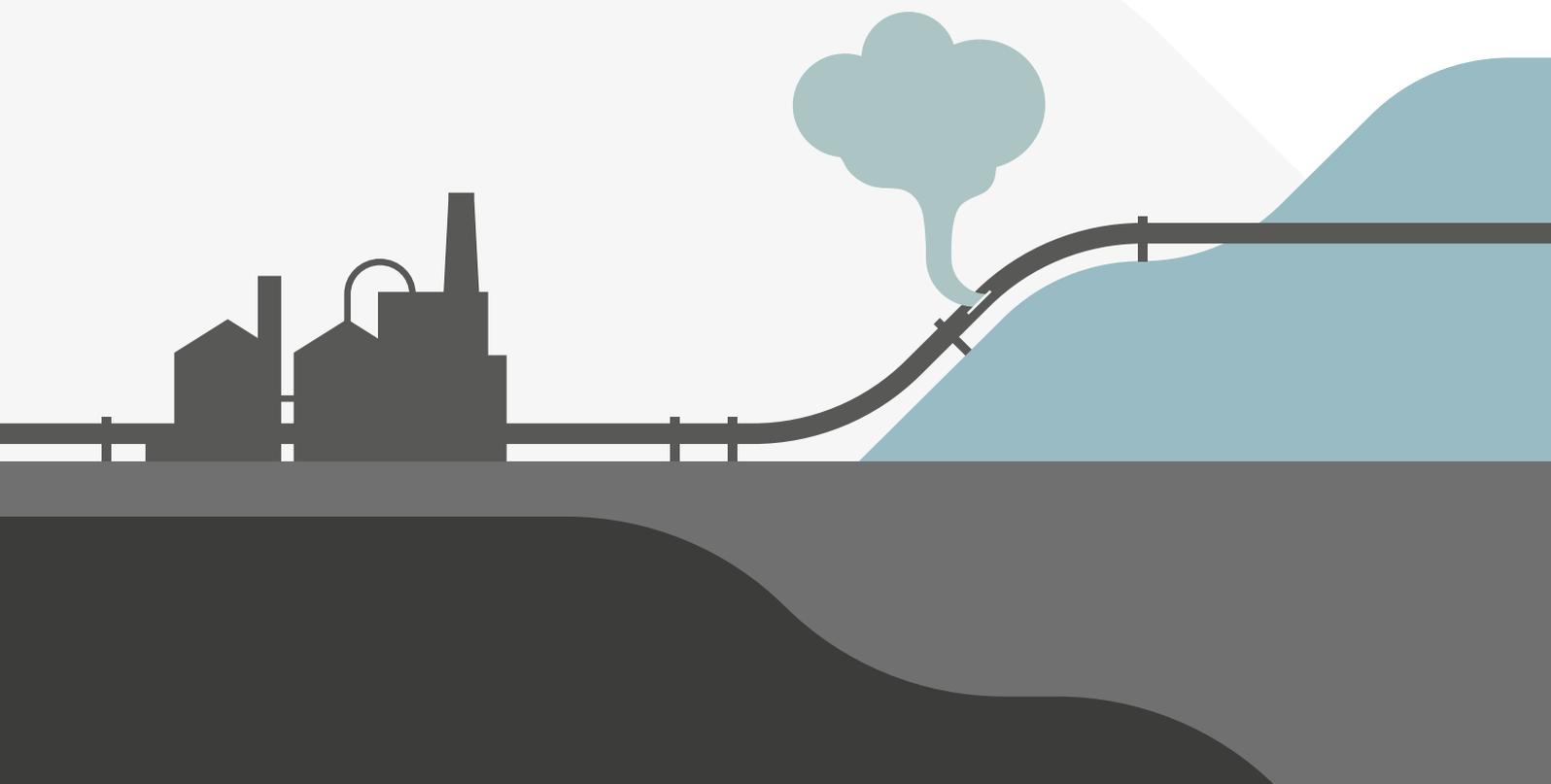
A GREENWASHING ISSUE

Right now, fossil gas imports and infrastructure expansion is being sold to Europe as the solution to its energy independence. This makes effective methane emission reductions critical, and reveals just why it is so important to talk about emission reduction in the context of a fossil fuel phase out. Methane abatement measures can be a fertile ground for the deployment of **greenwashing practices** and the perpetration of the false myth of fossil gas as a *transitional* or *clean* fuel. Fossil fuel companies could easily use new methane reduction measures to claim they are making fossil fuels more climate-friendly. Yet, there is no realistic situation in which fossil fuels can be extracted, transported and used without any methane or CO₂ emissions. There are **several kinds of false gas promises that will have to be tackled** if we want to keep rising global temperatures under 1.5°C and effectively reduce GHG levels.

- **Liquefied Fossil Gas (LNG)** infrastructure has taken centre stage as Europe looks to replace one energy dependency with another, expanding the capacity of its LNG import terminals across the continent. This is a dangerous move for methane emissions as leaks and intentional releases of methane during the extraction of gas and transport of the liquefied fossil gas can constitute up to 14% of LNG's life-cycle emissions.³³ And despite the false promise of *net-zero* or *low-carbon* LNG, there is a real lock-in risk if Europe follows through on planned LNG expansion, creating further fossil fuel dependence and climate impacts.
- **Hydrogen** is being sold as Europe's *end-game* for fossil gas, with all gas infrastructure built now expected to be *hydrogen ready* for when the climate impacts of that new gas infrastructure catches up with us, and we realise that we should be using renewables. Yet much of this empty promise also relies on **blue hydrogen** - hydrogen powered by gas, with the dangerous, unproven promise of capturing (part of) the CO₂ released in the hydrogen production process. Even with optimistic assumptions about technically achievable leakage rates for CO₂, the carbon footprint of blue hydrogen production is more than 20% greater than burning either fossil gas or coal directly for heat, or about 60% greater than burning diesel oil for heat.³⁴ Even if the rate of methane emissions from fossil gas is reduced to a low percentage (1.54%), GHG emissions from blue hydrogen are still higher than simply burning fossil gas.³⁵

- **Renewable Gases** are the new parade of industry fake solutions and we must underestimate the harmful idea of ramping-up the production of **renewable natural gas** (RNG). This is an industry term for methane captured from raw materials such as agriculture waste, manure or sewage, and referred also as *biogas* or *biomethane*. EU countries, like Italy, France or Denmark are massively investing in the expansion of biomethane and biogas production over the coming years that could reach 95 bcm by 2050.³⁶ In the case of Italy, for instance, the forecast is to invest €5 billion over the next five years for the production of biomethane.³⁷ On its part, the EU Commission, in the effort to cut off Russian fossil fuel supplies, wants to raise the production of biomethane to 35 bcm per year by 2030,³⁸ which is tenfold in comparison to current levels. The issue is that **biogas or biomethane are often not sustainable**. Once RNG is captured from organic components and injected into pipelines, or blended with fossil gas, it is identical to fossil gas, so **it is just methane**. **RNG therefore has the same wracking-climate impacts** when leaked into the atmosphere. Besides, "to make matters worse the factory farms that produce the biomethane can emit harmful pollutants into the air and discharge nitrates into groundwater".³⁹ Further, these fuels, if not carefully managed, could risk legitimising the production of waste or mass-scale farming practices, which are environmentally damaging and should not be encouraged. Supporting investments in biomethane offers a life-jacket to the fossil fuel industry to keep their business model and infrastructure intact.⁴⁰

These new loopholes and avenues to keep fossil gas in our energy future, show that we must go beyond methane emission reduction and phase out dangerous energy altogether.



END FOSSIL FUEL COMPANIES INTERFERENCE IN CLIMATE POLICY

Legislative initiatives designed to prevent methane leakage must be drafted without the fossil fuel industry's influence. Just like the tobacco industry was prevented from writing health legislation, oil, coal and gas interests have no place in shaping our climate laws. Fossil fuel companies have lobbied for decades to block policies which cut emissions and keep fossil fuels in the ground. This comes from privileged access to top-ranking EU representatives, expensive lobbying activities, and the revolving doors between fossil fuel companies and political institutions.⁴¹ Industry control shapes the science and risks weakening ambition, as they protect their business models at all costs. Current global methane emission estimates from the energy sector are expected to be around 70% higher than official government figures,⁴² a gap resulting from limited data and low industry self-assessments. This under-reporting of methane emissions, and the lack of industry action to fix the problem, already shows that relying on industry to regulate itself does not work.

To protect our people, planet and the climate we need emission reductions under the Methane Regulation to be managed by an independent body that provides unbiased, science-led oversight, leading us out of fossil fuels in the long term, while keeping CO2 and methane emissions to a minimum in the short term. A crucial decision in this respect could be to extend the mandate of the politically independent European Scientific Advisory Board on Climate Change. The board should be entrusted with the task of designing an ambitious strategy to ditch fossil fuels by 2035 and raise the European climate targets to effectively get us on the path of keeping global temperature increase within 1.5°C.

THE OGMP REPORTING FRAMEWORK

The Oil and Gas Methane Partnership (OGMP) is a **voluntary** measurement-based reporting framework for methane emissions. Originally created in 2014 by the CCAC and UNEP, it was updated in 2020 with the launch of the OGMP 2.0⁴³. The new framework covers the whole oil and gas supply chain and includes over 70 fossil fuel companies.

The OGMP 2.0 has five levels of reporting, and source-level reporting starts at level 3. Notably, the level 5 involves additional complementary site-level measurements. Companies joining OGMP 2.0 are required to provide direct measurement of methane emissions within 3 years (operated assets) and 5 years (non-operated assets).

As the proposed Methane Regulation's MRV is built on OGMP 2.0 methodology, which is a voluntary-based framework, the **EU actually needs to verify that companies apply and comply with it.** Additionally, the Commission's proposal considers a prolonged time frame to reach the OGMP 2.0 level 5, 36 months for operated assets and 48 months for non-operated assets.

Finally, we cannot overlook the fact that OGMP 2.0 is a multi-stakeholder partnership formed by oil and gas companies. It is crucial to **carefully avoid conflict of interests and guarantee an independent supervision of methane reduction and reporting.**



THE WAY FORWARD

While reducing methane emissions, along with CO₂ and other GHGs, is a key step to fight climate change in the short term, it will not provide a solution to the above-mentioned environmental, health and social damages created by fossil fuels. Moreover, the proposed Methane Regulation fails to prevent all leaks, spills and accidents that result in methane emissions. Additionally, measures included in the **proposal would likely only come into effect around mid-2024 at the earliest**, with some specific provisions taking even longer. By that time it will be too late to just fix leaky pipelines if we want to keep our 2030 commitments to fight against climate change.

Signatories to this manifesto demand the following adjustments to the upcoming EU Methane Regulation.

The Regulation must:

- Reference a **phase-out of all fossil fuels by 2035 at the latest**, in line with the latest science. An EU-wide action plan to phase-out fossil fuels must take into account national circumstances, raising ambition where possible and be transposed into national climate strategies **as well as explicitly recalled in other legislative proposals to deliver a methane emissions reduction at the root source**. A fossil fuel lock-in should be prevented in other legislative proposals, i.e. the Gas Package, the Trans-European Networks for Energy (TEN-E) Regulation, the FuelEU Maritime Regulation and the Alternative Fuels Infrastructure Regulation (AFIR).
- Reiterate, as was proposed by the European Parliament, the necessity to **halt all existing hydraulic fracturing operations and ban the authorization of any new fracking infrastructure in Europe**. This must go hand-in-hand with **halting the expansion of fossil fuel infrastructure**, as outlined by the European Parliament and the IEA.
- **Ensure that the costs of methane emission reduction measures are not paid by consumers** but are borne by fossil fuel industries themselves. The regulation should enforce the polluter pays principle, avoiding the burden of methane emission reduction costs falling on consumers.
- **Decidedly address greenwashing**, a widespread and consolidated practice among the fossil fuel industry. Compliance with measures contained in the Methane Regulation must not be used in industry marketing or propaganda to either appear *greener* or *low-emission*, or to prop up an argument that supports the extension of the life of fossil fuels.
- **Extend the mandate of the politically independent European Scientific Advisory Board on Climate Change**. This will provide unbiased, science-led oversight, leading us out of fossil fuels in the long term, while keeping CO₂ and methane emissions to a minimum in the short term.
- Include mandatory methane rules that encompass the **entire fossil fuel value chain, including imports and the petrochemicals sector, as demanded by the European Parliament in its own-initiative report on the Methane Strategy**. Acknowledging that the EU is heavily reliant on fossil fuel imports and most of its methane emissions happen outside its borders, it is necessary to apply the same standards for domestic and imported fossil fuels.
- Clearly analyse the **implications for policies and measures of using a 20-years time horizon for global warming potential**, as a complement to the 100-year timeframe currently used for methane emissions, as stressed by the European Parliament in its resolution on the EU Methane Strategy. Such an analysis on the short-term implications of methane emissions can better inform EU climate policies.



**SIGN THE
MANIFESTO**

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