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SEPARATING ENERGY FACTS FROM FOSSIL FICTION

Straight answers to the false narratives shaping the energy debate

Frequently Asked Questions

Isn't it more important to address the demand for fossil fuels rather than the supply?

NO, IT IS NOT. Focusing on demand alone is not sufficient. To stay within climate targets, major fossil fuel-producing countries also need to agree on limiting supply in line with the Paris Agreement. This would reduce investments in fossil fuel production and infrastructure that are incompatible with climate goals, and help redirect capital toward renewable energy, electrification, and other clean solutions.

Many policymakers argue that cutting emissions by reducing demand for fossil fuels is enough, making supply-side measures unnecessary. However, supply and demand are closely linked. If we only reduce demand without addressing supply, we risk flooding the market with cheap oil and gas, which can outcompete renewables and slow the energy transition.

Governments worldwide are still planning to produce far more fossil fuels than is compatible with climate targets. According

to the Production Gap Report, planned fossil fuel production in 2030 is around 120% higher than what would be consistent with a 1.5°C pathway.

Fossil fuel investments also have very long lifetimes – often up to 50 years – creating a risk of locking in emissions for decades. Even if demand falls and prices drop, many oil and gas fields may remain profitable to operate, further increasing the risk of oversupply and undermining renewable energy.

By contrast, limiting fossil fuel supply now – by jointly agreeing to stop new investments – would help bring us closer to climate targets, reduce the risk of stranded assets in fossil fuel production and infrastructure, and make renewable energy more profitable and attractive.

Do fossil fuels improve energy security and affordability?

NO, THEY DO NOT. Emission reductions and the energy transition are often framed as conflicting with energy security and affordability, particularly for poorer countries. This overlooks that many countries would benefit economically and strategically from shifting away from fossil fuels toward renewables.

Around 74% of the world's population lives in countries that import fossil fuels. Most of these countries have significant renewable energy potential, according to Ember. Expanding renewables, electrification, and electric vehicles can therefore

improve energy security by reducing dependence on imported fuels.

Fossil fuel dependence also carries high economic costs. In the EU alone, coal, oil, and gas imports totaled €1.8 trillion between 2021 and 2024. By contrast, renewable energy can generate major savings. The IEA estimates that renewables have already saved \$1.3 trillion globally since 2010 and could reduce household energy costs by around 20% in advanced economies by 2035, with similar benefits emerging later in developing countries.

Does coal, oil, and gas impact nature?

YES, THEY DO. Coal, oil, and gas extraction and production damage nature at every stage of their lifecycle. Exploration fragments habitats through roads, seismic surveys, and infrastructure, while noise, light, and pollution disrupt wildlife behavior, migration, and breeding. As fossil fuel activities expand into more remote and fragile areas, these impacts increasingly affect ecosystems with high biodiversity value.

During production, fossil fuel operations release toxic substances through spills, leaks, and routine discharges, contaminating soil, freshwater, and marine environments. Coal mining causes large-scale land disturbance, deforestation, and long-term water pollution, including acid mine drainage.

Together, these pressures drive biodiversity loss and weaken ecosystem functions.

The combustion of fossil fuels is also the largest driver of climate change. Rising temperatures force habitat shifts, intensify extreme weather, and cause ocean acidification, coral bleaching, and ice melt. These climate impacts compound local environmental damage and further undermine ecosystem resilience.

Overall, coal, oil, and gas cause both acute disasters, such as spills, and long-term, cumulative degradation. This combination steadily erodes ecosystem health and increases the risk of irreversible ecological tipping points.

Is a global warming of 3°C really that bad?

YES, IT IS. Climate change and biodiversity loss are increasingly recognized as the greatest long-term risks facing the world, with impacts already visible today. The World Economic Forum's Global Risks Report 2025 ranks climate-related risks at the top over the next decade, including extreme weather, biodiversity loss and ecosystem collapse, the crossing of climate tipping points, food and water shortages, and the spread of misinformation.

According to the IPCC, warming around 3°C could trigger several critical tipping points, increasing the risk of major ecosystem collapse in the oceans, the Arctic, and the Amazon. At this level of warming, around one-third of land species

could disappear, and roughly half of marine life could be severely affected.

Global warming would also have severe economic consequences. A 3°C increase would disrupt food production as many regions become too hot or dry to farm, and estimates suggest that each additional degree of warming could reduce global GDP by 10–20 percent. These impacts would fall disproportionately on developing countries, underscoring the importance of limiting warming. Even if the 1.5°C target is currently out of reach, it remains a critical benchmark to avoid drifting toward 3°C.

Should we prioritize phasing out coal, before we do anything about oil and gas?

NO, WE SHOULD DO BOTH. The majority of global fossil CO₂ emissions (around 37 GtCO₂ per year) come from coal (41%), followed by oil (32%) and gas (21%). However, if the world is to reduce emissions in line with the Paris Agreement, there is no room to exempt any fossil fuels.

According to the Production Gap Report, projected increases in fossil fuel production under current government plans would lead to global production levels in 2030 that are 500%, 31%, and 92% higher for coal, oil, and gas, respectively, than what is consistent with a 1.5°C pathway. These plans also exceed the fossil fuel production implied by countries' own climate pledges by 35% in 2030 and 141% in 2050.

All energy scenarios consistent with the Paris Agreement make it clear that there is no room for new investments in coal, oil, or gas. Any new fossil fuel projects risk locking in emissions well beyond 2050 – the point by which the world must reach net zero.

It is critical that governments come together to develop a coordinated, effective, and equitable plan to phase out fossil fuels in line with the 1.5°C threshold, rather than pursuing fragmented national approaches that continue to invest in and lock in new emissions from coal, oil, and gas.

Could the reduction in supply of fossil fuels be managed through a global or collective policy?

YES, IT CAN. Research shows that cutting fossil fuel supply does reduce global emissions. Several peer reviewed studies find that supply reductions lead to higher prices and lower demand, and that increased production elsewhere does not fully offset the cuts. Prest et al. (2024) estimate that emissions fall by 40–50% per unit of reduced oil and gas supply.

Recent research also shows that reduced production in one country is not simply neutralized over time. Harstad and Holtmark (2025) find that gas production can ultimately

displace renewables rather than coal, meaning higher gas supply leads to higher long-term emissions – a conclusion also supported by Acemoglu (2023).

The climate impact of supply cuts is significantly larger when producers act together. Coordinated limits on fossil fuel production, as analyzed by Asheim, Fæhn et al. (2019), could be a powerful climate measure. Existing initiatives such as the Fossil Fuel Non-Proliferation Treaty and the Beyond Oil and Gas Alliance aim to support such coordination.

Don't we need oil and gas to produce necessary plastics?

NO, WE DO NOT. Plastic production causes significant environmental and health harm. Mismanaged plastic waste, especially in the oceans, damages wildlife, while exposure to certain plastics is linked to negative health effects. Much plastic is also incinerated, releasing greenhouse gases and toxic chemicals.

Plastic production currently accounts for a relatively small share of fossil fuel use—about 14% of global oil and 8% of gas, according to the IEA. Even in a near zero fossil energy

system, limited plastic production for critical uses could be maintained through higher recycling rates and the use of biobased feedstocks.

To address plastic pollution, an international plastics treaty is being negotiated alongside measures to reduce plastic use, improve product design, increase recycling, and promote circularity and alternatives. Together, these actions could reduce global plastic demand by 40–70% (Science, 2021), significantly lowering the need for oil and gas as feedstock.

Is developing new oil and gas fields in line with the Paris Agreement?

NO, IT IS NOT. While some scenarios can illustrate national pathways consistent with 1.5°C, they do not grant any country or fossil fuel the right to emit. What matters is total global emissions within a limited carbon budget.

The Paris Agreement commits countries to hold warming well below 2°C and pursue efforts to limit it to 1.5°C, while also requiring global net zero emissions in the second half of the century. It further emphasizes equity and “common but differentiated responsibilities,” meaning high-income countries are expected to reduce emissions faster.

Most IPCC and IEA scenarios are based on cost efficiency rather than fairness and therefore underestimate how quickly wealthy countries should cut emissions. Given limited climate finance, a fair interpretation of the Paris Agreement leaves very little room for continued oil and gas production.

As a result, even if some modelled pathways include ongoing fossil fuel use, this does not mean that developing new oil and gas fields is aligned with the Paris Agreement – especially when the 1.5°C goal and equity principles are considered.

Do environmental organizations want to phase out fossil fuel production immediately?

NO, THEY DO NOT. Environmental organizations are often accused of calling for an abrupt end to fossil energy, but this is misleading. Most advocate for a rapid, planned, and just transition – not an overnight shutdown – to avoid energy shortages and social harm.

Delaying the transition only makes future cuts more disruptive. The urgency is heightened by the fact that the fossil fuel industry knew about climate risks decades ago yet funded campaigns that delayed action.

At the same time, there is large, untapped potential to accelerate the transition. Governments still spend around

US\$725 billion annually on fossil fuel subsidies, nearly as much as global investment in renewables. Redirecting these funds could significantly boost clean energy, reduce emissions, improve energy security, and help reduce poverty.

As overshooting the 1.5°C threshold is imminent, coordinated global action to phase out fossil fuels and scale up renewables is more urgent than ever.

Emerging technologies can address emissions effectively; won't innovation deliver the scalable solutions we need without having to phase out fossil fuels?

NO, IT WILL NOT. Innovation alone cannot deliver the scale and speed of emissions reductions needed without a phase out of fossil fuels. While new technologies help reduce emissions, they cannot compensate for the continued expansion of high-emitting fuels, especially when governments still plan to produce twice the amount of fossil fuels, which will be incompatible with the 1.5°C threshold.

The remaining carbon budget is extremely small, requiring rapid and deep cuts, not slower substitution. UNEP's Emissions Gap report shows that even with accelerating clean-tech deployment, we only stay on track if fossil fuel supply and demand decline sharply this decade.

In short: innovation is essential, but without a managed phase out of fossil fuels, emerging technologies simply cannot close the emissions gap in time.

If abated with carbon capture and storage, isn't fossil fuel production okay?

NO, IT IS NOT. Even if emissions are "abated" with carbon capture and storage (CCS), fossil fuel production is not "okay". Analyses show that CCS remains prohibitively expensive, unproven at scale, and captures only a tiny fraction of global emissions (around 0,1% today), while most CCS projects fail. Often, CCS or "abated fossil fuels" are argued by the fossil lobby to extract more fossil fuels, increasing emissions rather than reducing them.

CCS cannot meaningfully address the full climate, nature, and health impacts of fossil fuel extraction and use. A rapid, equitable phase-out of fossil fuels is essential to stay within 1.5°C.

Even the Intergovernmental Panel on Climate Change highlights major uncertainties around whether fossil fuels with CCS are compatible with the Paris Agreement.

Are fossil fuel exploration and production financially viable in the long term?

NO, THEY ARE NOT. The long-term financial viability of fossil fuel exploration and production is rapidly deteriorating. New fossil investments face major economic and financial risks, with offshore projects carrying significant long-term liabilities and exposing economies to volatility and risk of stranded assets.

leaving companies and investors exposed to debt and early decommissioning costs.

Expanding production is fundamentally incompatible with the Paris pathway, making long-term profitability highly unlikely as the world accelerates toward steep fossil-fuel decline.

Even under a moderate transition, cash flows will drop due to falling demand, tighter climate policy, and declining prices,

We cannot argue for the phase out with new LNG dependence and new infrastructure being developed?

YES, WE CAN. Any new CO₂-emitting infrastructure is incompatible with remaining carbon budgets. Long-term gas demand in regions like the EU is already projected to fall sharply, making new Liquefied Natural Gas (LNG) assets at high risk of becoming stranded.

For the EU, demand analyses show that existing production and contracts already exceed future needs, with LNG imports expected to decline rapidly. No new projects are therefore needed to ensure security of supply.

Scaling renewables and scaling fossil gas cannot happen simultaneously. New LNG infrastructure has crowded out clean energy investments and locks in emissions for decades.

In short: LNG dependence is not a long-term argument against phase-out. It's evidence of why a planned, orderly transition away from gas is urgently needed.

KEY MESSAGES

WHY A TRANSITION AWAY FROM FOSSIL FUELS IS NECESSARY

- Fossil fuels drive nearly 80% of global emissions, with oil and gas alone responsible for over half. A rapid and deep reduction is crucial to keep 1.5°C within reach.
- Governments still plan to produce double the fossil fuels, which is incompatible with the 1.5°C threshold, creating a widening “production gap”.
- The impacts of climate change are already causing biodiversity loss, ecosystems degradation, and severe social risks, especially in vulnerable regions.
- Offshore and onshore fossil development threatens sensitive ecosystems, including marine biodiversity hotspots and indigenous food systems.
- Protecting nature is inseparable from climate action: the fossil fuel phase-out must proceed in parallel with restoring ecosystems and scaling nature-positive renewable solutions.

NOW IS THE TIME FOR GLOBAL MOMENTUM

- More than 80 countries supported the Transition Away From Fossil Fuels (TAFF) Roadmap at COP30, signaling unprecedented political traction.
- International alliances - such as the Fossil Fuel Non-Proliferation Treaty initiative, Beyond Oil and Gas Alliance, and the Powering Past Coal Alliance, and now the first TAFF conference in Santa Marta – provide platforms for coordinated international action.
- The 2026 Santa Marta Conference is a key moment to shape global pathways, mobilize political will, and formalize enabling frameworks for the transition away from fossil fuels.

WWF'S SOLUTIONS

- New fossil fuel exploration should stop, and production must align with the 1.5°C pathway.
- Phase-out timelines should be differentiated by capacity and responsibility levels of countries, with developed countries taking the lead.
- We need a just, orderly, and equitable transition, grounded in science and supported by international cooperation and financial mechanisms.
- Any new CO₂-emitting energy infrastructure is incompatible with remaining carbon budgets. We need a zero-emission energy system to rapidly replace fossil fuels.

NO NEW FOSSIL FUELS (EXPLORATION)

- New exploration is inconsistent with 1.5°C and locks in carbon-intensive infrastructure for decades.
- Existing fields are sufficient to meet declining demand scenarios. In many regions (ie. the EU), long-term gas demand is already projected to fall dramatically.
- High income producer-countries have a special responsibility to lead the global transition away from fossil fuels, due to capacity, wealth and historical emissions.

JUST TRANSITION

- Fossil-dependent economies face rising risks: declining profitability, stranded assets, and reduced market demand. A planned transition avoids economic shocks and protects workers.
- Jobs will decline regardless of policy, but not planning the transition increases the uncertainty for workers. Clear pathways improve conditions for reskilling and green job creation.



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