



**Less Demand or Less Supply? Winding
Roads Away from Fossil Fuels and
Inequality**

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Summary

The need to transition away from fossil fuels is becoming more evident than ever as the US and Israel's war in the Middle East continues to shine a light on global fossil fuel dependencies and their associated consequences. How can this be done in a fair and effective way? Climate-related policies on fossil fuels have traditionally targeted consumption behaviour via market-based tools or demand-side policies, such as carbon pricing and carbon taxes. However, this has been criticised for reinforcing the carbon-centric political and economic system, lacking transparency, and only shifting emissions between jurisdictions, often with disproportionate distributional effects. Scholars have long argued for supply-side policies that target fossil fuel extraction and infrastructure directly to complement demand-side solutions. These include moratoria on new exploration, taxation of profits and investments, bans on export finance for overseas fossil fuel projects, and termination of oil and gas licensing rounds, among other things. This brief explores recent discussions on the need to advance supply-side policies. It recommends that Swedish and European policymakers become active participants in national and international efforts to strengthen reporting and disclosure requirements on fossil fuel investments and profits, work to develop progressive wealth-based carbon taxes linked to the carbon content of owned assets or investments, and complement carbon pricing with policy tools that directly target fossil fuel investment flows. The first international conference to Transition Away from Fossil Fuels held in Santa Marta, Colombia in April 2026 provides a political momentum to implement these policy changes.



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Introduction

With shipping through the Strait of Hormuz largely blocked, access to fossil fuels has once again moved to the forefront of political and economic concerns. Despite the substantial progress made worldwide with planning for and deploying renewable energy,¹ oil, gas, and coal continue to play a central role in global energy use, albeit to a varying extent across countries. In the European Union (EU), for example, fossil fuel dependence remains significant. Crude oil and petroleum made up 38% of the EU's energy mix in 2024, natural gas 21%, and solid fuels (coal or peat) 10%. Furthermore, a lot of this energy is imported. In 2024, the EU produced 43% of its own energy, while 57% was imported.² Sweden also relies heavily on energy imports, mainly from Norway, the United Kingdom and the USA, especially of crude oil, which represents 25% of its total energy mix.³ However, Sweden is less fossil fuel dependent than some countries. In Sweden, renewable and nuclear energy represent 48% and 25% of its energy profile, respectively.⁴ Natural gas production in the EU takes place mainly in Romania and the Netherlands (both 36%),

Ireland (30%) and Croatia (15%). Crude oil production takes place mainly in Denmark (29%), Croatia (15%), Romania and Italy (both 13%).⁵

The consequences of decades of fossil fuel dependence are now clear, from increased economic and political instability to wider implications for the planet, democracy, and human rights.⁶ Since the US-Israeli attack on Iran, the EU has spent an extra €24 billion on fossil fuel energy imports compared to previous years.⁷ Episodes of sharp fossil fuel price increases and the resulting strain on the public finances serve as reminders of global energy interdependencies and the structural vulnerabilities embedded in fossil fuel-based systems, as more voices highlight the fact that households and individuals are 'feeling the pinch'.⁸ On the one hand, this development has sparked renewed discussions around the need to phase out fossil fuels and for an accelerated clean energy transition. On the other hand, some voices in the UK, for example, urge the scrapping of the ban on granting new licences in the North Sea and increased drilling for oil and gas.⁹

¹ IEA (2025), Renewables 2025, IEA, Paris <https://www.iea.org/reports/renewables-2025>, Licence: CC BY 4.0.

² Eurostat (2025) <https://ec.europa.eu/eurostat/web/interactive-publications/energy-2026>.

³ Drivkraft Sverige. Retrieved April 20, 2026 from [Import/Export - Drivkraft Sverige](https://www.drivkraft.se/import-export).

⁴ Eurostat (2025) <https://ec.europa.eu/eurostat/web/interactive-publications/energy-2026>.

⁵ Ibid.

⁶ Rentzhog, I. (2026). *Fossil Fuel Phaseout Talks Begin With Half The Global Economy*. Retrieved April 28, 2026, from <https://www.forbes.com/sites/we-dont-have->

[time/2026/04/26/fossil-fuel-phaseout-talks-begin-with-half-the-global-economy/](https://www.forbes.com/sites/we-dont-have-time/2026/04/26/fossil-fuel-phaseout-talks-begin-with-half-the-global-economy/).

⁷ Bove, T. (2026). *The EU is spending an extra \$28 billion on energy imports, and answering with demand destruction, tax cuts, and a rapid clean energy shift*. Retrieved April 27, 2026, from <https://fortune.com/2026/04/24/eu-extra-fossil-fuel-imports-28-billion-clean-energy-shift/>.

⁸ Harvey, F. (2026). *As Iran war exposes global dependence on fossil fuels, the biggest emitters are reaping the rewards*. Retrieved April 8, 2026, from <https://www.theguardian.com/environment/2026/apr/07/iran-war-global-dependence-fossil-fuels-biggest-emitters-reaping-rewards>.

⁹ Gibbs, E. (2026). *North Sea Nationalisms*. Retrieved April 17, 2026, from



These debates highlight not only the economic but also the profound political and institutional challenges of reducing fossil fuel production. Fossil fuel extraction is deeply embedded in national development strategies, public revenue systems, and geopolitical positioning. Questions of equity and justice are also part of the picture, reflecting the dependence of many communities on revenues from and jobs in fossil fuel sectors.¹⁰ Energy security, sovereignty, and geopolitical rivalry also shape fossil fuel strategies. These dynamics reflect broader patterns of “carbon lock-in”, in which technological systems, institutions, and political coalitions co-evolve around fossil fuel dependence, which makes fossil fuel phase out both technically and politically challenging.¹¹ In addition to these challenges, clean energy solutions come with their own set of difficult choices and costs that need to be part of the wider discussion on how we want our energy and climate future to look.

Addressing the production and consumption of fossil fuels is a complex question. While it is not limited to climate negotiations and climate-related policies, thinking about fossil fuel phase out from a climate policy perspective can shed light on critical questions of *what policy tools do we have to address fossil fuel dependencies in a just way and can market mechanisms alone navigate*

<https://www.break-down.org/north-sea-nationalisms/>.

¹⁰ Muttitt, G., Price, J., Pye, S., & Welsby, D. (2023). Socio-political feasibility of coal power phase-out and its role in mitigation pathways. *Nature Climate Change*, 13(2), 140–147.

<https://doi.org/10.1038/s41558-022-01576-2>.

¹¹ Kuzemko, C., Lockwood, M., Mitchell, C., & Hoggett, R. (2016). Governing for sustainable

these? This brief discusses these questions by summarising recent scholarly debate and offering policy recommendations for European and Swedish audiences on possible ways to support a transition away from fossil fuels. The first international conference to Transition Away from Fossil Fuels in Santa Marta, Colombia, in April 2026 provided political momentum and a new international platform to address this complex challenge.

Role of the climate regime in fossil fuel phase out

Dependence on fossil fuels has long been a central concern within the climate science and policy communities. As early as the 1980s and 1990s, scholars and policymakers were arguing for the development of roadmaps to address this dependency. The Intergovernmental Panel on Climate Change’s (IPCC) First Assessment Report (1990) explicitly identified the combustion of fossil fuels as the dominant source of greenhouse gas (GHG) emissions. Today, major international assessments – notably the UN Production Gap Report, the International Energy Agency Net Zero by 2050 scenario and successive IPCC reports – underscore that without rapid and sustained reductions in fossil fuel production, global climate targets will remain out of reach.¹²

energy system change: Politics, contexts and contingency. *Energy Research & Social Science*, 12, 96-105.

<http://dx.doi.org/10.1016/j.erss.2015.12.022>.

¹² SEI, Climate Analytics, E3G, IISD, & UNEP. (2023). *The production gap: Phasing down or phasing up?*

<https://doi.org/10.51414/sei2023.050>.



This evolving recognition has begun to surface, albeit cautiously, within international climate negotiations. At COP26 in Glasgow in 2021, countries agreed to “accelerate efforts towards the phasedown of unabated coal power and the phase-out of inefficient fossil fuel subsidies”.¹³ The call on nations to transition away from fossil fuels was also part of a decision on the world’s first “global stocktake” at COP28.¹⁴ More recently, in April 2026, the first International Transition Away from Fossil Fuels (TAFF) conference took place in Colombia, where 57 governments as well as civil society representatives raised concerns around how the fossil fuel industry exacerbates inequalities and environmental destruction. The conference called for pathways to be developed to transition away from fossil fuels, with consideration of climate change but also of the inequalities associated with the distribution of the costs and benefits of energy production. Political leaders highlighted how the recent energy crisis is affecting living standards while the conference explored support for countries to transition away from fossil fuels.¹⁵ The conference represents a new governance process, separate from the UN Framework Convention on Climate Change (UNFCCC), that offers a new opportunity for frontrunner countries to cooperate on the fossil fuel transition and to accelerate climate action. How it progresses remains to be seen, in

¹³ Glasgow Climate Pact: https://unfccc.int/sites/default/files/resource/co_p26_auv_2f_cover_decision.pdf.

¹⁴ United Nations (2023). *COP28 ends with call to ‘transition away’ from fossil fuels; UN’s Guterres says phaseout is inevitable*. Retrieved April 27, 2026, from https://news.un.org/en/story/2023/12/1144742?_gl=1*47my29*_ga*NjU5MzEyMTgxLjE3NjkxNj

terms of how it interacts with the UNFCCC process or whether it manages to convince various constituencies, such as big fossil fuel producers and the wider public, of the need for an energy transition.

The Limits of Markets: When Price Signals Are Not Enough

To date, climate policy has mobilised different tools nationally and internationally. Historically, climate governance focused on demand-side policies aimed at reducing fossil fuel consumption and “greening” the economy through technologies and expansion of low-carbon energy supply. Examples of specific policy tools include carbon pricing and carbon taxes, emissions trading schemes, efficiency standards, market-based offset mechanisms, and carbon credits. These policies typically target behavioural change and the consumption of fossil fuels, rather than fossil fuel production. Their appeal lies in their compatibility with existing market institutions and economic models, which has led to their relative proliferation across the world.

Carbon markets and carbon pricing are common tools that put a price on GHG emissions and incentivise companies to emit less using price signals. They are designed to function with minimal state intervention.

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¹⁵ Watts, J. and Harvey, F. (2026). *Middle East crisis could cost world \$1tn while oil firms make ‘obscene’ profit, analysis finds*. Retrieved April 28, 2026, from <https://www.theguardian.com/environment/2026/apr/28/middle-east-crisis-oil-firms-profit-colombia-conference>.



However, research has shown that the success of the EU Emissions Trading System (ETS) has in large part been due to careful and strict regulatory oversight.¹⁶ The EU ETS was adopted in 2005 and regulates about 40% of the EU's total GHG emissions.¹⁷ In 2025, the EU decided to allow countries and companies to purchase emission reduction credits from projects outside the EU, a practice criticised for avoiding domestic emission reductions by shifting responsibility elsewhere.¹⁸ These are seen as economically viable routes to reducing emissions, however, positioning such market-based solutions as the current dominant approach in Europe and Sweden.

Nonetheless, there are ongoing challenges associated with implementation of these policies and with their effectiveness and integrity. First, they remain embedded in a “carbon-centric” paradigm that prioritises GHG emission flows but ignores the political and economic systems that keep expanding fossil fuel production.¹⁹ While framed as economically efficient and politically neutral, these instruments often obscure the deep structural, political, and distributive drivers of the climate crisis, which include wealth

concentration and institutionalised power asymmetries. Narrowly targeting carbon flows may reinforce rather than challenge the economic systems that produce not only GHG emissions but broader societal inequalities. Second, there is little evidence that emissions trading schemes alone will deliver the global emission reductions at the scale required to achieve the Paris Agreement goals.²⁰ While the EU ETS has to some extent been successful in reducing carbon emissions, it has also led to the relocation of emission-heavy production outside the EU.²¹ Third, there are issues of transparency and integrity of action. Through the purchase of carbon credits, often in projects in the Global South, businesses and companies tend to view emission reductions as cost-effective compared to the integration of more sustainable practices in their own value chains. In this way, companies can achieve higher reductions in emissions per monetary unit.²² However, there are often problems around the quality and integrity of emission reduction projects and the lack of transparency in carbon offset markets.

¹⁶ Cullenward, D., & Victor, D. G. (2020). *Making climate policy work*. John Wiley & Sons.

¹⁷ European Parliament. (2023). *Reducing carbon emissions: EU targets and policies*. Retrieved April 15, 2026, from <https://www.europarl.europa.eu/topics/en/article/20180305STO99003/reducing-carbon-emissions-eu-targets-and-policies>.

¹⁸ Fortuna, G. (2025). *EU open to carbon offsets on path to 2040 emissions target*. Retrieved April 15, 2026, from <https://www.euronews.com/my-europe/2025/07/02/eu-open-to-carbon-offsets-on-path-to-2040-emissions-target>.

¹⁹ Green, J. F. (2025). Existential politics: why global climate institutions are failing and how to fix them.

²⁰ Green, J. F. (2021). Does carbon pricing reduce emissions? A review of ex-post analyses. *Environmental Research Letters*, 16(4), 043004. <https://doi.org/10.1088/1748-9326/abdae9>.

²¹ Pellegrini et al. (2021) 'Institutional mechanisms to keep unburnable fossil fuel reserves in the soil'. *Energy Policy* 149. <https://doi.org/10.1016/j.enpol.2020.112029>.

²² Schmuck, D., Andersson, H., & Mark-Herbert, C. (2025). Corporate motives for financing carbon offsets a case study of Swedish corporations. *Journal of Cleaner Production*, 520(15). <https://doi.org/10.1016/j.jclepro.2025.146049>.



From Demand to Supply: The Case for Fossil Fuel Exit Policies

The question therefore arises of how the limitations of demand-side policies can be addressed while also addressing wider structural problems. Scholars argue that demand-side policies should be complemented by supply-side policies to target the production of fossil fuels, in order to constrain fossil fuel extraction and new infrastructure and investments.²³ Such policies would involve moratoria on new exploration, bans on coal mines, the termination of oil and gas licensing rounds, restrictions on public land leasing, the removal of fossil fuel subsidies, taxation of profits and investments, divestment initiatives, and bans on export finance for overseas fossil fuel projects.²⁴ This policy direction seeks to challenge embedded carbon lock-ins and incumbent power relations. While the adoption and implementation of these policies around the world have been limited, there are examples, provided by the fossil fuel tracker dataset,²⁵ of ongoing efforts and sustained continuing support from social movements.²⁶

²³ Newell, P., & Daley, F. (2024). Supply-side climate policy: A new frontier in climate governance. *Wiley Interdisciplinary Reviews: Climate Change*, 15(6), e909. <https://doi.org/10.1002/wcc.909>.

²⁴ Erickson, P., Lazarus, M., & Piggot, G. (2018). Limiting fossil fuel production as the next big step in climate policy. *Nature Climate Change*, 8(12), 1037–1043. <https://doi.org/10.1038/s41558-018-0337-0>.

²⁵ <https://fossilfueltracker.org/app/ffnpt>.

²⁶ Newell, P and Carter, A. (2024). Understanding supply-side climate policies: towards an interdisciplinary framework. *International Environmental Agreements: Politics, Law and*

As mainly importers rather than producers of fossil fuels, the EU and Sweden employ demand-side policy approaches. However, they have also implemented some policies and schemes that target the production of fossil fuels. In 2022, for example, Sweden passed a law banning fossil fuel exploration and extraction in the country.²⁷ ²⁸ Furthermore, several Swedish organisations and institutions are committed to divesting from fossil fuel development. These include various universities, several municipalities and regional governments, such as Borås, Malmö, and Örebro, as well as NGOs and corporations, such as SEB bank and Folksam insurance company.²⁹ However, divestment policies are easily reversible, and durability of commitment plays a central role. Furthermore, institutional investments, including by pension funds, in fossil fuel production remain a large problem in Sweden and internationally.³⁰

Supply-side measures could offer several advantages over “carbon-centric” policies and could be more transformative in not just limiting GHG emissions but reconfiguring economic and market institutions that reinforce and perpetuate fossil fuel

Economics 24, 7–26.

<https://doi.org/10.1007/s10784-024-09631-3>.

²⁷ Slothuus, L. (2026). Symbolic wins as stepping stones toward material gains: Lessons from Sweden’s fossil fuel production ban. *The Extractive Industries and Society*, 27, 101929. <https://doi.org/10.1016/j.exis.2026.101929>.

²⁸ Prop 2021/22:NU23 retrieved April 20, 2026, from [Förbud mot utvinning av kol, olja och naturgas och skärpta regler för utvinning i alunskiffer \(Betänkande 2021/22:NU23 Näringsutskottet\) | Sveriges riksdag](https://www.fundyourmother.org/sv).

²⁹ <https://fossilfueltracker.org/app/ffnpt>.

³⁰ <https://www.fundyourmother.org/sv>.



dependency. They could achieve this in different ways. By directly limiting extraction, they can prevent infrastructure lock-in and reduce future emission trajectories.³¹ Fossil fuel production is also concentrated among relatively few firms and regions, so governing supply may be administratively easier than regulating dispersed consumption.³² Furthermore, they target emissions connected to fossil capital, investments, and ownership that are highly concentrated and constitute a large proportion of all emissions.³³ One study shows that just ten global actors have the power to effect a significant shift in global emissions trajectories. These include investment firms and private equity funds such as Blackrock, Vanguard Group, and StateStreetCorp.³⁴ In addition, a 2026 private equity tracker report³⁵ shows that 20 private equity firms are invested in 248 fossil fuel-based companies, while fossil fuel companies account for 64% of private equity firms' energy portfolios, controlling a significant share of the energy economy.

Moreover, recent data shows a strong link between wealth and carbon emissions: 75–80% of the emissions of the wealthiest 10% in the USA arise from their assets rather than private consumption. The study argues that “a tax of 150 euros/dollars per tCO₂e [tonne of carbon dioxide equivalent] levied on the carbon content of assets has the potential to be significantly more progressive than an equivalent tax on the carbon content of consumption”.³⁶ Another study finds that among the highest earning 1% of households in the USA, investment holdings account for 38–43% of their emissions, which suggests that a shareholder-based carbon tax focused on investments might have equity advantages over traditional consumer-facing cap-and-trade or carbon tax options.³⁷ Similar research indicates that spikes in oil and gas prices result in profits for energy companies and primarily benefit the wealthiest 1% of households and the affluent minority of owners of oil and gas shares, while passing the costs on to others, exacerbating inequality in wider society.³⁸ Wealth inequality also increases emission

³¹ Pichler, M., Bärnthaler, R., Wiedenhofer, D., Roux, N., & Gingrich, S. (2025). Conceptualizing supply- and demand-side climate change mitigation: A typology and new research directions. *Energy Research & Social Science*, 127, 1-12. <https://doi.org/10.1016/j.erss.2025.104225>.

³² Lazarus, M., Erickson, P., & Tempest, K. (2015). *Supply-side climate policy: The road less taken*. Stockholm Environment Institute.

³³ Chancel, L., Gómez-Carrera, R., Moshrif, R., Piketty, T. et al. (2026) World Inequality Report 2026, World Inequality Lab. [wir2026.wid.world](https://www.wid.world).

³⁴ Dordi, T., Gehricke, S. A., Naef, A., & Weber, O. (2022). Ten financial actors can accelerate a transition away from fossil fuels. *Environmental Innovation and Societal Transitions*, 44, 60-78. <https://doi.org/10.1016/j.eist.2022.05.006>.

³⁵ <https://peclimaterisks.org/>.

³⁶ Chancel, L., & Rehm, Y. (2025). Accounting for the carbon footprint of capital ownership advances the understanding of emission inequality. *Climatic Change*, 178(11), 211. <https://doi.org/10.1007/s10584-025-04044-w>.

³⁷ Starr, J., Nicolson, C., Ash, M., Markowitz, E. M., & Moran, D. (2023). Income-based U.S. household carbon footprints (1990–2019) offer new insights on emissions inequality and climate finance. *PLOS Climate*, 2(8), e0000190. <https://doi.org/10.1371/journal.pclm.0000190>.

³⁸ Semieniuk, G., Weber, I. M., Weaver, I. S., Wasner, E., Braun, B., Holden, P. B., ... & Edwards, N. R. (2025). Best of times, worst of times: record fossil-fuel profits, inflation and inequality. *Energy Research & Social Science*, 127, 104221. <https://doi.org/10.1016/j.erss.2025.104221>.



inequality through the degradation of institutions, notably a deterioration in democracy and giving control over decision making and policies to wealthier individuals and companies.³⁹

Thus, supply-side policies open up possibilities for addressing how wealth and ownership structures generate and perpetuate fossil fuel extraction, instead of reducing climate policies to lifestyle changes or consumer behaviour alone. These policies could aim to interrogate unequal income and wealth distribution and socio-economic inequality, much of which is a direct consequence of the fossil fuel economy and a state- and market-based order underpinned by fossil fuels.

Leadership by Sweden and Europe?

Against this backdrop, the question is not only whether a fossil fuel phase-out is necessary, but who should lead on it and how. Sweden and the European Union are well placed to play such a role. The EU is still one of the world's largest importers of oil and gas, which gives it both a responsibility and an opportunity to shape the transition through domestic policy and international cooperation. Sweden can also play a leadership role separately and as part of the EU. While recognising the current geopolitical and economic instability and the

costs that would come with taking on a leadership role in the fossil fuel transition, policies that address the production, supply, import and subsidy of, as well as investment in fossil fuels would lay the foundations for greater economic stability, energy security, and climate protection in the long term.

Outlined below are the policies and principles that the EU and Sweden could promote domestically and internationally to support the global transition from fossil fuel production. Sweden and the EU could take on a leadership role in promoting these ideas at the next UNFCCC COP in Turkey in November 2026 and at the Second Transition Away from Fossil Fuels conference in Tuvalu in 2027.

1. **Import-focused fossil fuel regulation:** Develop an EU roadmap and common standards for regulating fossil fuel imports to align market access with climate goals and producer-side phase-out pathways.⁴⁰
2. **Transparency and accountability for fossil fuel capital:** Strengthen reporting and disclosure requirements on fossil fuel investments, profits, and ownership chains to improve accountability and enable more effective policy interventions.

³⁹ Apeti, A. E., Bambe, B. W. W., Edoh, E. D., & Ly, A. (2025). Wealth inequality and carbon inequality. *Ecological Economics*, 227, 108406. <https://doi.org/10.1016/j.ecolecon.2024.108406>

⁴⁰ SUS-POL University of Sussex (2026). European Leadership on Fossil Fuel Phaseouts: Lessons

learned and future directions.

https://www.eesc.europa.eu/sites/default/files/2026-03/policy_brief_european_leadership_on_fossil_fuel_phaseouts_lessons_learned_and_future_directions.pdf.



3. **Investment- and ownership-based policy instruments:** Complement carbon pricing with policy tools that directly target fossil fuel investment flows and ownership structures to address the financial drivers of continued extraction.⁴¹
4. **Differentiated and cooperative international phase-out framework:** Work with partners to advance an equitable and just international phase-out regime based on differentiated responsibilities and capabilities, recognising the importance of fossil fuel production to countries' development and employment, both to phase out fossil

fuels domestically and to support transitions elsewhere, anchored in international cooperation.

5. **Asset-based climate regulation and taxation and international cooperation:** Design climate regulation and international cooperative frameworks that take asset ownership into account, including progressive wealth-based carbon taxes linked to the carbon content of owned assets or investments, thereby ensuring that those who profit most from fossil fuel production contribute fairly to the transition.⁴²

⁴¹ Green, J. F. (2025). Existential politics: why global climate institutions are failing and how to fix them.

⁴² Chancel, L., Gómez-Carrera, R., Moshrif, R., Piketty, T. et al. (2026) World Inequality Report 2026, World Inequality Lab. [wir2026.wid.world](https://www.wid.world).



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