

ENERGY TRANSITION MYTHBUSTERS

MYTH #1 — The private sector is driving a rapid renewable energy transition



THE MYTH

According to incumbent energy industry actors, a rapid energy transition is well underway. 'The outlook for low-carbon transition continues to look extremely bright' according to Bloomberg New Energy Finance, who reported that global investment in low-carbon energy technologies bypassed \$1 trillion last year.²⁷

The dominant narrative claims that it is private investors that are driving change. Addressing the American Clean Power Association in 2021, John Kerry, US special presidential envoy for climate said: 'I personally believe it is the private sector that is going to make the greatest difference here because no government has the amount of money necessary to accelerate this transition at scale'.²⁸

According to this view, if governments themselves have a role it is to 'unlock private investment' towards innovations in renewables.²⁹ In the words of one European Commission report: 'this unprecedented transition will require trillions of euros in investments, most of which will be sourced from the private sector.'³⁰

THE REALITY

In reality, the rapid transformation of the energy system we need is by no means underway.³¹ Where progress is being made, this is highly uneven: **the speed of transition in the global North remains far too slow, while many countries within the global South are being left behind.** And where the energy transition is proceeding it tends to be led by public institutions.³² Meanwhile, when public support is withdrawn, private investment disappears. Much of the public funding and subsidies available are hijacked to prioritise private profits over the common good.

NO RAPID ENERGY TRANSITION IS UNDERWAY

The global energy system is still heavily dependent upon fossil fuels:

- Coal, oil and gas still account for 82 per cent of total primary energy consumption worldwide.³³ Global coal use in late 2022 was at a record high.³⁴
- Coal use has doubled over the past 20 years due to rising coal consumption in China, India, Vietnam, Indonesia, Turkey and elsewhere.^{35, 36}
- Global demand for gas has roughly doubled since 1990 and continues to rise. If current trends continued, global demand for gas is expected to rise by 14 per cent above 2019 levels by 2030.³⁷
- Global oil consumption is increasing. A 2021 IEA study suggested that global oil consumption for 2022 would be an average of 2.1 million barrels per day higher than 2021. This figure is projected to rise by a further 2.1 million barrels per day in 2023.³⁸

Global renewable energy investment reached a record high of \$0.5 trillion in 2022. However, this figure is less than one third of the average annual investment needed between 2023 and 2030, if we are to meet the globally agreed target to limit warming to 1.5°C above pre-industrial levels (the 1.5°C

target).³⁹ **The rate of growth for new renewable energy deployment halved between 2016–2021.**⁴⁰ And renewables currently account for just 28 per cent of global electricity production and just 11.5 per cent of global energy consumption.^{41,42} As such, it is no surprise that global energy-related CO₂ emissions are still rising, reaching a new record in 2022.⁴³ According to new IEA data, just three of the fifty components of the energy transition are fully on track.⁴⁴

Meanwhile, the private sector continues to stand in the way of the renewable transition. For example, BP recently spent \$12 million to crush an initiative in Washington state to introduce a small pollution fee.⁴⁵ And much of the clean energy investment that the energy industry trumpets amounts to nothing but greenwash. The amount that Shell, for example, invested in its ‘Renewable and Energy Solutions’ division in the final quarter of 2022 was half that invested in marketing. **In 2022, its ‘Renewable and Energy Solutions’ investment amounted to 7.5 times less than the figure returned to shareholders.**⁴⁶

While no one realistically expects the likes of Shell and BP to lead the way on renewable energy investment, these fossil fuel giants remain the dominant actors within the energy sector.

THE PRIVATE SECTOR IS LEAVING AREAS OF THE GLOBAL SOUTH BEHIND

While global renewables investment may be rising in some places, there is a huge deficit of clean energy investment in southern countries. According to the International Energy Agency, while developing and emerging economies are home to two thirds of the world’s population, just one fifth of global clean energy investments are directed to these contexts. Unfortunately, this situation is only getting worse: annual investment across all aspects of the energy sector in developing and emerging economies has declined by 20 per cent since 2016.⁴⁷ A seven-fold surge in clean energy investment is required in these countries by 2035 to meet the Paris Agreement and sustainable development goals.⁴⁸ **Just 2.1 Gigawatts (GW) of new wind and solar generation were installed in the entire continent of Africa in 2021.**⁴⁹

The situation in sub-Saharan Africa is particularly acute. Just 7.4 GW of solar energy and 5.7 GW of wind were installed by the end of 2019, compared to Asia’s 258 GW of wind and Europe’s 195 GW of wind. Indeed, all 48 countries across sub-Saharan Africa have less combined installed wind and solar capacity than Spain.

While ‘free-market’ proponents argue that the answer is policy frameworks that unlock private investment, the case of South Africa shows the opposite. Between 1994 and 2000, South Africa’s state-owned utility Eskom made substantial investments in the energy sector, more than doubling electrification from 31 per cent to 66 per cent.⁵⁰ However, in 2001, with the ruling African National Congress party moving towards a neoliberal agenda, the government mandated that Eskom ‘not [be] allowed to invest in new generation in the domestic market... to ensure meaningful participation of the private sector in

electricity in the medium term.⁵¹ However, no meaningful private investment was forthcoming, and the result was years of power cuts, increased energy poverty and stalled grid extensions. The government eventually U-turned on its decision to prevent Eskom from investing in new capacity.

THE PUBLIC LEADS ON ENERGY TRANSITION FINANCING

As the case of Eskom suggests, in practice it is the public sector rather than the private sector that leads on energy transition. One recent study of utility firm investments between 2005 and 2016 found that under the same policy environments, public utilities devoted higher proportions of their total investments to non-hydropower renewables (i.e. solar, wind, biomass and geothermal) than private utilities did.⁵² Between 2019–2020, public funds⁵³ and households invested \$376 billion into climate finance, including in renewable energy, climate mitigation, and adaptation to climate change. **Public funds and households made up 60 per cent of all climate finance, exceeding total private investment.**⁵⁴

This dynamic has played out clearly in relation to the climate finance target established at the 2009 UN Climate Change Conference in Copenhagen (COP15), where it was agreed that by 2020, rich countries would raise \$100 billion annually as climate finance for the global South. This target has yet to be reached. **Of the \$80 billion raised in 2019, \$63 billion came from public sources.**⁵⁵

In Belgium, between 2005 and 2016 publicly owned utilities diverted 72 per cent of their total energy generation investment to non-hydropower renewables, compared to 51 per cent from Belgian private funds. In the Czech Republic, across the same period, while public utilities devoted 92 per cent of energy generation investments to non-hydropower renewables, no private firm invested in renewable capacity additions above 1 Megawatt (MW).⁵⁶

Moreover, contrary to neoliberal ideology — according to which the public sector is ‘risk averse’ and the private sector is ‘innovative’ — research shows that public institutions are more likely to fund higher-risk transition sectors. For example, private sector research and development funding has tended to stick to established technologies such as wind and solar, whereas the public sector has led on technologies further away from commercialisation such as tidal and wave energy.⁵⁷

A 2022 International Renewable Energy Agency (IRENA) study showed that state involvement in the electricity sector in the global South is currently increasing. IRENA write: ‘The drivers that in the past led to the predominance of regulated systems — such as intense grid expansion needs and a post-World War II reconstruction context — are gaining traction today as the transition progresses and socio-economic challenges are high on the agenda.’⁵⁸

Indeed, some of the most impressive examples of energy transition taking place at the moment see state-owned utilities leading the way.

In Uruguay, for example, a state-owned utility firm called UTE has been the key actor driving one of the most advanced energy transitions in the world,

with the country running on 98 per cent renewable energy. UTE was awarded the highest investment grade AAA by international credit agencies. What's more, it is one of the principal sources of funding for the Uruguayan state, with a significant proportion of its revenues being diverted to fund other public services.⁵⁹

PUBLIC FUNDS SERVICE PRIVATE SECTOR PROFITS

Public energy transition funding has often been channelled into handsome profits for large energy companies, wealthy individuals, and businesses producing and selling renewable energy.⁶⁰

For example, Feed-in-Tariffs (FiT) are publicly funded purchasing agreements for renewable electricity at above-market rates. After Germany started to use FiTs in 2000, they were soon adopted by many other countries across the world, the aim being to make renewable energy attractive to private investors, from big corporations to households. The initial result was a rapid growth in renewable energy production.

However, to pay for these above-market rates, Germany charged consumers an extra surcharge on energy bills. In 2016, Germany spent €25 billion on renewable energy, €23 billion of which came directly from these consumers' charges.⁶¹ It was estimated that the additional costs of FiTs in Germany amounted to nearly 25 per cent of electricity bills in 2014. **While the majority of the benefits were enjoyed by investors, private renewable companies, and wealthier households, the burden of these costs affected poorer households the hardest.**⁶²

WITHOUT PUBLIC SUBSIDIES, PRIVATE INVESTMENT DISAPPEARS

Ultimately, FiT costs grew uncontrollably and governments such as Germany and China replaced these with competitive auctions where energy companies compete to provide the cheapest energy.⁶³ The results of this change were dramatic: between 2017 and 2018, investments in clean energy in China reduced by 38 per cent (with solar falling by 53 per cent); in Germany, renewable investments dropped 46 per cent in 2015.⁶⁴ These auctions benefitted the biggest and most resourced energy producers while bringing the income of smaller decentralised producers to collapse: **estimates show that non-hydro renewable energy installations are set to be one third less this decade than between 2010–2019.**⁶⁵

The enormous fall in new installations shows how dependent private sector investments are on public funds. Within this model, where the public subsidises shareholder returns, profitability continues to take priority over a rapid and just transition. In the US, for example, **President Biden's 2022 Inflation Reduction Act sees a huge public subsidy of \$369 billion to private investors in low-carbon technologies** to make profitable energy transition projects that would otherwise not get off the ground.⁶⁶

The case of so-called 'blended finance' initiatives raises further questions about the role of the public sector in propping up the private sector. Blended finance

is a World Bank backed approach that seeks to use public funding to mobilise private sector investment to aid progress towards the Sustainable Development Goals. Blended finance is heavily promoted as a ‘catalyst’ of energy investments in low-income countries.⁶⁷ However, London based think-tank the Overseas Development Institute (ODI) estimates that a dollar of public investment might be expected to mobilise just \$0.37 in private finance in low-income countries, and marginally more in lower-middle-income countries and upper-middle-income countries, respectively, \$1.06 and \$0.65.⁶⁸ ODI’s core conclusion is that ‘the public sector picks up much of the cost, and... often **blended finance does not mitigate risk but merely transfers it from the private to the public sector.**’⁶⁹

FOSSIL FUEL INDUSTRY PROFITS ARE STILL SOARING

As mentioned above, renewable energy sources are increasing far slower than is necessary to prevent further climate catastrophe. This is the consequence of a policy paradigm where the renewable transition is based on the imperatives of private profit rather than public planning for the common good.⁷⁰

Even as the Intergovernmental Panel on Climate Change (IPCC) warns that time to act to prevent the most disastrous effects of climate change is running out, investments in fossil fuels continue to be greater than in renewables.⁷¹ The COVID-19 pandemic did not slow fossil fuel profits — the fossil fuel industry took billions in US pandemic relief funds while laying off tens of thousands of workers.⁷² Nor has the war in Ukraine seen this trend shift — fossil fuel companies have made record profits since the beginning of the war — in excess of €3 billion in the EU alone — by driving up prices and pumping up oil production.⁷³

All things considered, the fossil fuel industry has done remarkably well in recent years, with the largest 25 oil companies making \$205 billion in profits throughout 2021 alone.⁷⁴ The IEA projected that despite the global energy crisis in 2022, **by the end of that year the global net income for oil and gas producers would have doubled the 2019 figures, reaching an unprecedented \$4 trillion.**⁷⁵ Here, again, we see private profits being prioritised over a rapid and just renewable transition.

WE NEED PUBLIC OWNERSHIP AND PUBLIC INVESTMENT

The private sector is not leading a rapid and global energy transition. The rise in renewables that has taken place has largely been through public policies and public funds that the private sector has profited from. Leaving the renewable transition in the hands of the private sector makes us vulnerable to the whims of ever more volatile energy markets and the pursuit of profit above all else. Instead, **we need public ownership of the energy sector with democratic accountability and participation from energy sector workers and energy users.**⁷⁶ And we need direct public investment in the energy transition, with a level of ambition and urgency proportionate to the scale of the crisis we face.

SUMMARY

- The private sector is NOT driving a rapid renewable energy transition.
- The rapid energy transition we need is not underway. Global renewable energy investment reached a record high of \$0.5 trillion in 2022. However, this figure is less than one third of the average annual investment needed between 2023 and 2030, if we are to meet the globally agreed 1.5°C climate target.
- Public funding rather than private investment has been the key driver of transition so far: 60% of total climate finance globally was accounted for by public funds (including households) in 2019/2020.⁷⁷
- Private investment in renewables is dependent on public funds.⁷⁸ When public subsidies are withdrawn, private investment disappears: reshaping and reducing subsidies cut new renewable installations by nearly half in Germany and China.⁷⁹
- While the private sector fails to deliver on investment in renewables, the fossil fuel industry continues to rake in bumper profits, often with the help of generous public subsidies. The largest 25 oil companies made \$205 billion in profits throughout 2021 alone.⁸⁰

This factsheet is part of the Energy Transition Mythbusters publication. Read the full report and find out about the other myths that threaten decarbonisation here: tni.org/energytransitionmythbusters

ENDNOTES

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