

REALITY CHECK: The Climate & Energy Debate Must Evolve in 2023

The world needs a more evidence-based approach if we are to come up with a tangible plan to combat Climate change

Martin Helweg, CEO, [P&O Maritime Logistics](#)

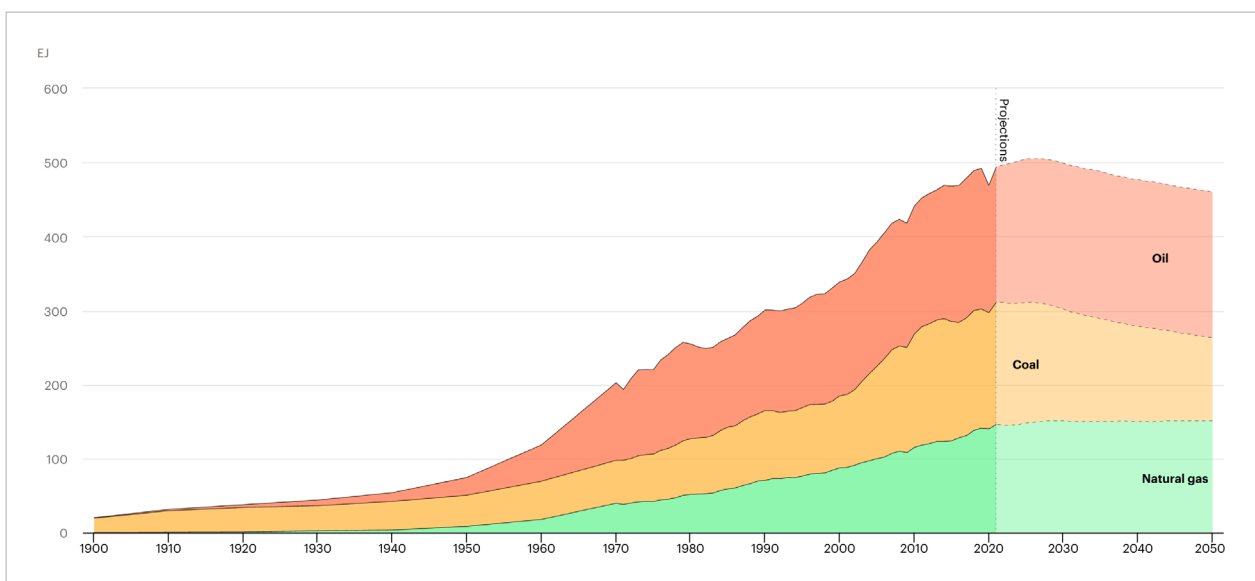
Any sound advice about setting goals will tell you to set goals that are Specific, Measurable, Achievable, Relevant and Time-bound - otherwise known as SMART goals. This has led me to think about conversations around climate change and energy and question how achievable some of the outcomes of the debates I witnessed in 2022 are.

The end goal is clear: We must cut greenhouse gas emissions to as close to zero as possible, to keep temperatures to 1.5°C above pre-industrial levels to avoid climate tipping points.

And as the United Nations tells us - [we are not on track](#). I believe, if we are to get on track and stay there, there are misconceptions we need to address.

What does the data show?

I've worked in the energy sector for years, and a common misconception is the idea that demand for hydrocarbons will cease to exist and renewables are the only way forward.



Fossil fuel demand in the Stated Policies Scenario, 1900-2050, [IEA World Energy Outlook 2022](#)

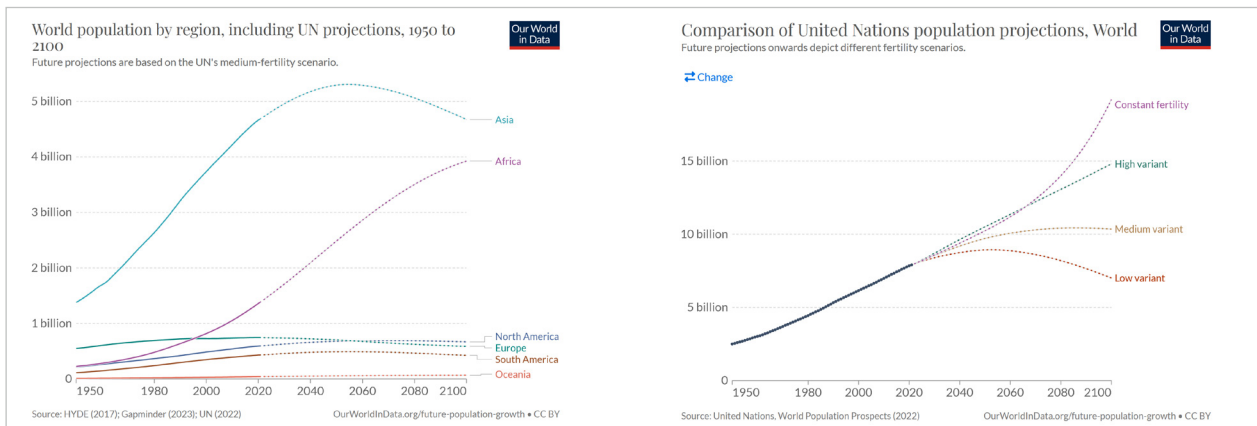
The demand for renewables is growing at an exponential rate. It is important to note that transitioning into renewables will take time,

and that fossil fuels still play a complimentary blend in the energy mix to ensure energy security.

Oil and coal consumption is expected to change quite significantly until 2050, according to the IEA World Energy Outlook. While demand for oil is still projected to grow in the short term, it will plateau around the 2030's and gradually decline after. The decline can be attributed to spurred investments into renewable energy, increased adoption of technology, improvements in energy efficiency and ramping up efforts to curb GHG emissions. This of course can be further accelerated if significant investments in renewable energy infrastructure are made and policies and regulations to adopt cleaner energy are introduced.

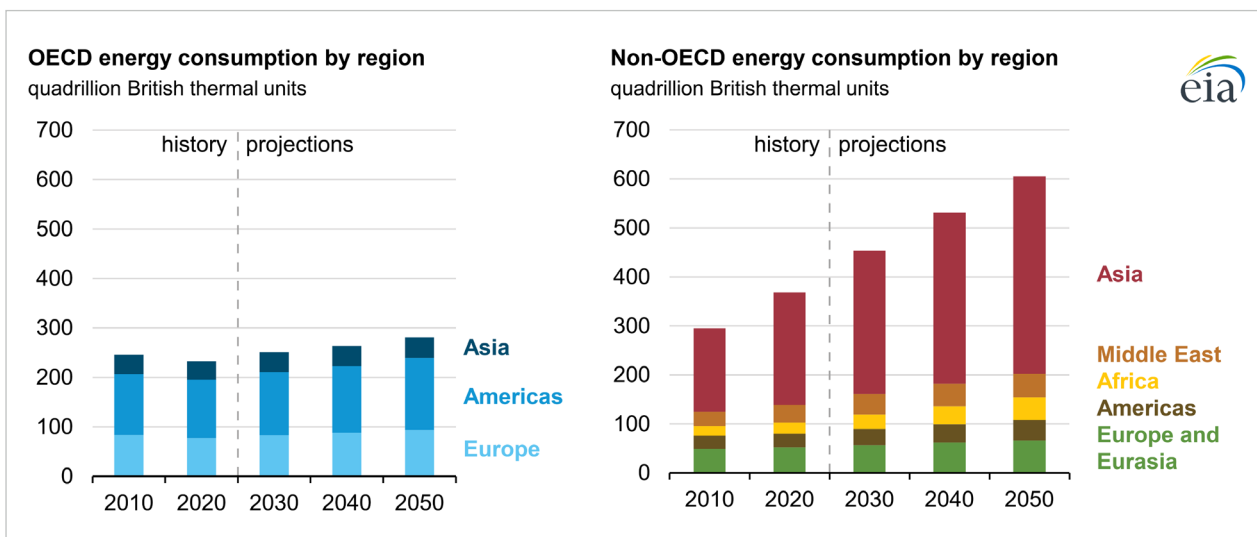
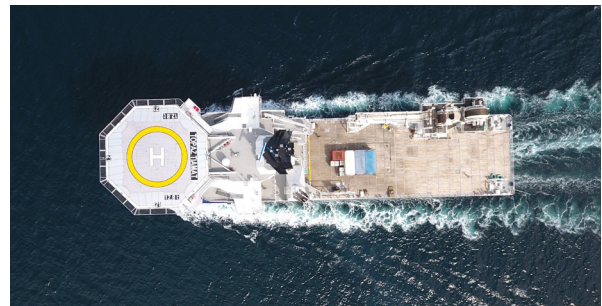
Moreover, it's anticipated that natural gas consumption will continue to rise in 2050. Gas, being a 'bridge fuel', will facilitate decarbonisation efforts as its 50 percent lower in emissions than coal.

If we consider the global demand for natural gas (consumption), studies indicate that it is expected to grow at an annual average rate of 0.8 percent by 2025, reaching 4,240 bcm by the end of the forecast (IEA). In regions such as Southeast Asia – where populations are relatively young compared to other parts of the world - there is a significant surge in demand.



World population projections, [Our World in Data](#)

Naturally, this development will have a markable impact on total energy demand, projected to increase **47% by 2050**, according to the US Energy Information Administration. While energy consumption is still going to go up in OECD nations, in non-OECD nations, it will double over the next 30 years.

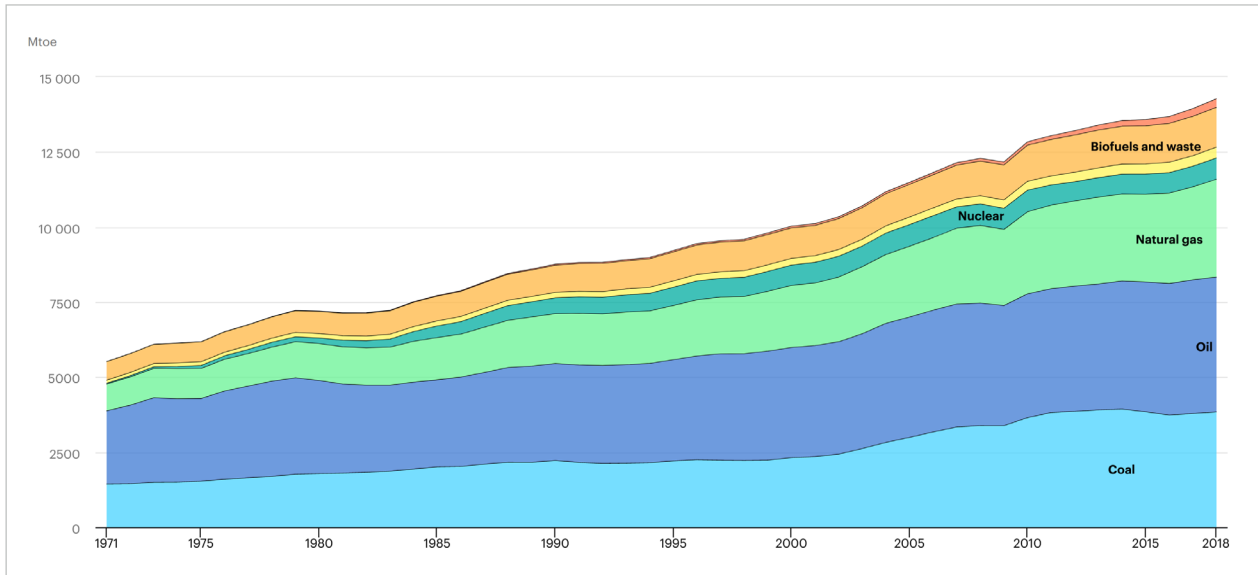


International Energy Outlook 2021, [U.S. Energy Information Administration](#)

The renewables shortfall

So, now we have a clearer picture of what the future of energy demand looks like, what about supply? Well, in 1973, fossil fuels made up 87% of the world's energy supply. In 2022, decades after we started to realise, at scale, how human activity was changing the earth's composition and temperature, fossil fuels still make up 82% of our total en-

ergy supply today. Unfortunately, forecasts indicate that coal will continue to be in the energy mix with consumption remaining flat through 2025 – primarily driven by a robust demand for coal in emerging Asian countries, despite efforts across mature markets to curb consumption.



World total energy supply by source, 1971-2018, [IEA](#)

While **82%** may still sound significantly high, this is a remarkable and important achievement, because during this 49-year period, energy demand doubled, as it is going to again – and yet we still managed to decrease our overall reliance on fossil fuels.

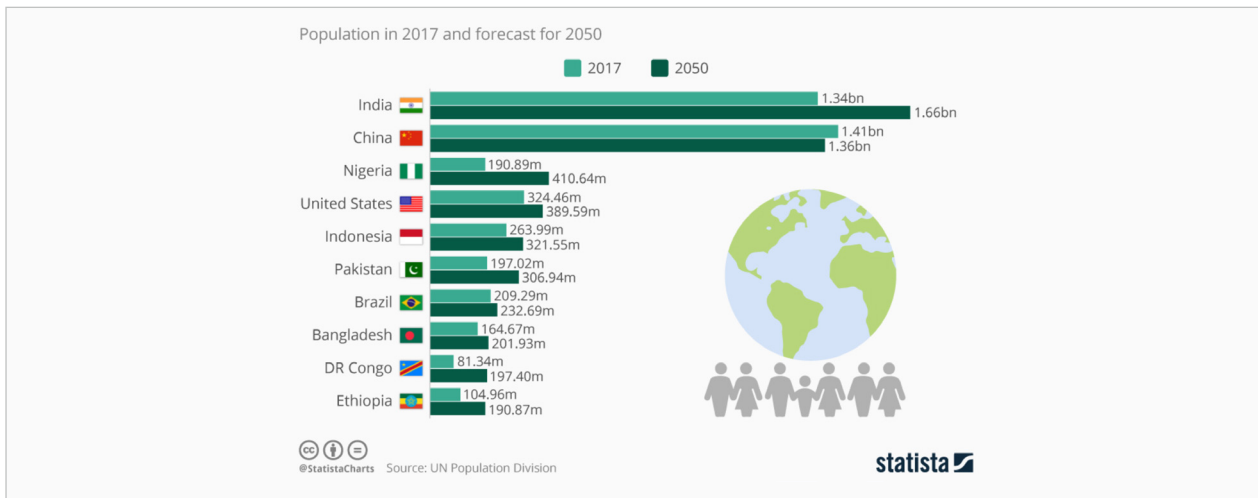


But, as it stands right now, our renewable capacity is nowhere near enough to meet the forthcoming increase in energy demand.

Estimates indicate the total share of renewable energy must rise from around **15% of the total primary energy supply now, to around two-thirds** (66%) by 2050 - in just 27 years' time. This means we need to **triple the current supply of renewables** and increase renewable power generation capacity up to 600 GW per year, compared to the current estimate of 250 GW per year. This equates to a total of **around 4,500 GW** renewable power generation.

A just transition: emerging economies' right to a middle class

Another challenge is the disconnect between areas that will experience a surge in population and countries with renewable energy potential. India, Nigeria, Pakistan, the Democratic Republic of the Congo, and Indonesia are expected to have the largest population growth between now and 2050.



The world's most populous nations in 2050, [Statista](#)

China, India, and Brazil also top the list of countries rolling out renewables the fastest, with an annual capacity growth rate of **13.2%, 12.3% and 10.4%** respectively.

When it comes to the non-BRICS, non-OECD nations though, such as Nigeria, it's a different story - and for good reason. Many of these countries lack basic infrastructure, capital, credit rating, expertise, and supply chains. The main focus for non-OECD countries' lies in identifying opportunities to build a middle class that can achieve economies of scale; but are hindered by their lack of access to affordable and sustainable energy.

According to the latest IPCC report, while there exists enough global financing to ra-

pidly reduce emissions, current levels of climate investment are insufficient and there must be an immediate recognition that investment for climate action be increased and allocated fairly.

"As the world's population continues to grow and energy consumption per capita continues to rise, we see an increase in global demand for energy. The only exception is in some OECD countries; where consumption may stabilize – or even decrease."

The analysis calls for increased financing for climate action, 3-6 times the current level and acknowledges developing countries require external funding to meet adaptation needs.

Economic headwinds and optimistic projections - a stubborn status quo

While it's encouraging that China and Europe are now achieving faster than expected growth this must be understood in the global context of how energy demand is going to change, and how it can viably be met.

For example, when turning off the taps from Russia meant gas shortages in Europe, member states, including Germany and France, **soon announced the reopening or extension of multiple coal-fired power plants** - many of

which were shut down as part of the EU's initial, direct response to climate change.

Europe eventually made it through the winter with a few wins. While climate aspirations in Europe were slightly displaced with 17 of Europe's coal plants emitting 16 million tons of CO2 worldwide in 2022, there has been an effort to roll out renewable energy sources to ensure that it remains within its set goals to slash emissions by at least 55 percent in seven years.

More achievable goals

The point is not that we should be discouraged or fatalistic, quite the opposite.

This is not to say fossil fuels are the answer, either - they're not. The severe ramifications of climate change, which will also hit the poorest, hardest - make this abundantly clear. The inconvenient truth is that we must make the transition to clean energy as soon as possible, it's just that doing so requires a clear-eyed view of what is possible, and how it can be achieved.

For example, richer nations should commit to significantly subsidising, and so making viable, renewable energy development and

Without trust, we will fail

While setting and pursuing highly ambitious roadmaps to reach net-zero, business leaders have a vitally important responsibility to deliver and be transparent about the complexities we face.

Recent [research shows that 76%](#) of people are worried about climate change, and 82% expect CEO's to take a public stand on addressing climate change.

Overcoming these challenges will rely on



businesses and governments' openness to collaboration and taking a stand on societal issues that matter to be able to deliver tangible change.

adoption in non-OECD nations.

The latest IPCC report indicates that our collective failure to cut down on GHG means that the world will exceed 1.5 degrees Celsius of global warming. This places an immediate and urgent need for rapid and far-reaching transitions across sectors, systems to achieve tangible reductions in emissions - transitions involving significant upscaling of mitigation and adaptation measures.

More developed nations have a responsibility to support emerging countries mitigate climate change through funding and investments in clean energy infrastructure.

To build a sustainable future, non-OECD countries cannot just rely on access to cheap sustainable energy. It is equally important to reaffirm their aspirations to bolster strong economies. Growth and development are critical components to achieve sustainability; and with that comes a responsibility to collaborate on establishing an environment that fosters economic growth and supports the development of sustainable infrastructure. By investing in sustainable economic development, we can create a more equitable and prosperous world for everyone.

That said, there are still good reasons for optimism. Awareness and understanding of climate change is increasing every day. We should keep believing in the power of human ingenuity, which is making renewable energy cheaper and more accessible every year. Governments and businesses are increasingly responding to consumers' demand for action, and we're seeing more agreement and international cooperation than ever before.

Plus, and perhaps most encouragingly of all - we are seeing brilliant young people all around the world engage with real passion, driving meaningful grassroots and community level commitments to change.

If you're interested in discussing how you can improve your organisation's logistics as part of the response to climate change and help ensure energy security for those that need it most, please get in touch by dropping Martin's team a line at POML.Communications@pomaritime.com

We look forward to speaking with you.

