ENERGY STUDIES INSTITUTE

Policy *Brief* 58

02 November 2022

ESG investing in the midst of an energy crisis

David C. Broadstock and Keerthana Gopinath

SYNOPSIS

The world is currently facing a global energy crisis. This crisis was defined by uncharacteristically high fuel prices which are translating into deep inflationary pressures, insurmountable short-term supply chain bottlenecks, and strained geopolitical relations. Surviving the energy crisis has emerged as the next big challenge in a world that is still recovering from the aftermath of the COVID-19 pandemic. Businesses and whole economies have had to make difficult choices between maintaining long-run commitments to climate change (and decarbonisation) versus short-term energy crisis management or look for alternatives to solve both simultaneously. This policy brief reviews the opportunities and challenges that the energy crisis brings from a lens of environmental, social and governance (ESG) investing.

KEY POINTS

- Economies are facing a deep energy crisis, manifested by high fuel prices, and complemented with broad inflationary pressures across many goods and services;
- Supply-chain bottlenecks and rising global geopolitical tensions provide a new perspective on the needs and opportunities to accelerate the energy sector's transformation to net zero;
- Amidst the global energy crisis, investors and portfolio managers are forced to revise their ESG and sustainable investment priorities.
- The crisis has triggered a return to fossil fuels in some regions, while estimates emerging that as many as 90 million people in Asia and Africa may be driven into energy poverty. Unambiguously, environmentally and socially responsible impact investors are met with a challenging and unfamiliar investment landscape;
- Tackling rising energy costs, while increasing security and resilience of energy supply without compromising on net zero targets may require revised strategies towards clean energy investments.

INTRODUCTION

Global energy markets have evolved rapidly since the mid-nineteenth century – and are continuing to do so.

The industrial revolution saw the introduction of coal-based energy for steam engines and power plants. Over time, with the progression of technology, there was a gradual shift towards higher energy content fuel sources like oil. This was driven by the rise of internal combustion engines and oil-powered ships. In the late twentieth century, petroleum products became the most prominent source of energy. Little appreciation existed at that time of the extent of environmental damages that prolific use of hydrocarbons would bring to our global eco-system.

Despite the knowledge gaps, there is a near universal recognition in present times (i) that anthropogenic climate change is real and (ii) that deep decarbonisation requires new thinking around the process of asset allocation, and how to steer financial capital towards investments with material environmental and social benefits while still maintaining minimally acceptable financial performance. This is sometimes called 'impact investing'. In this pursuit, ESG investing (a form of impact investing conducted using ESG related information) has emerged as the de-facto

Energy Studies Institute
29 Heng Mui Keng Terrace,
Block A, #10-01, Singapore 119620
Tel: (65) 6516 2000 | Fax: (65) 6775 1831
esi.nus.edu.sg

A Research Institute of NUS National University of Singapore

practice for responsible and impactful investment.

Corporations have begun to embrace ESG standards within their operations and be more responsible towards climate change. At the same time developed economies are further strengthening their commitment towards tackling climate change such as the EU Emissions Trading System (ETS) while emerging and developing economies are pledging their climate goals for the very first time.

However as of today, economies around the world are facing an energy crisis of proportions that are difficult—if not impossible—to reconcile against other energy crises in recent memory. This is complemented by a swathe of economic pressures resulting in high fuel prices as well as broad reaching and global inflationary pressures.

These were initiated at the onset of the COVID-19 pandemic which created a rapid decline in energy demand—which created a short run decline in prices—with indefinite duration (at the time) as economies implemented lockdown procedures. As time progressed energy supply chains responded with cuts in oil production.

In late 2021, there were signals in many countries that businesses are going back to normal or at least a "new-normal" mode of operation, and at quite rapid pace. This led to a spike in energy demand, and sudden and severe supply-demand imbalances e.g., an energy supply chain crisis of sorts. This supply side crisis has been further exacerbated with global disputes following events including the Russian invasion of Ukraine, China-Australia coal trade and climate abnormalities like the Brazilian drought in 2021 and Europe's extremely dry summers of 2022. Much like with the impact of COVID on energy demand, material elements of the current energy supply crisis have an indefinite duration.

ANALYSIS

Impact of global energy crisis on economies

The global energy crisis is spurring new investments in fossil fuels. Some economies are resorting back to fuels such as coal to meet their short-term energy demand requirements and be prepared for the upcoming winter season. As coal prices surge, even landlocked countries like Botswana have begun exporting coal to Europe. Tanzania expects its thermal coal exports to double in 2022 due to the energy crisis. Within Europe, the German government has described the coal revival as a painful but necessary move and assures it will be temporary. Nevertheless, this contradicts existing climate commitments and may unravel years of effort and investment.

As far as emerging and developing economies are concerned, today's energy crisis may push nearly 90 million people in Asia and Africa who had previously gained access to electricity into energy poverty since they can no longer afford to pay for their basic energy needs.[1] The total energy bill paid by consumers worldwide is likely to exceed SGD 14 trillion (USD 10 trillion) in 2022, the highest seen so far.[1] The poorest parts of society will struggle the most with these rising energy bills. In other words, there are looming distributional welfare consequences. This may require governments, central banks, and international financial institutions to consider if and how fiscal interventions may be deployed to help 'absorb' the shock.

Impact of global energy crisis on fossil-fuel producers

Soaring prices have created huge windfall profits for fossil fuel producers, with net income set to double to SGD 6 trillion (USD 4 trillion) for oil and gas companies alone in 2022.[1] The current situation serves as an "once in a generation" opportunity for fossil fuel producers to deliver on their net zero pledges by channelling the extra flow of funds towards necessary transition investments and low emission fuels such as low carbon hydrogen.

The European Union has announced plans to raise about SGD 196 billion (USD 137 billion)

[1] International Energy Agency (IEA). 2022. "World Energy Investment 2022." https://iea.blob.core.windows.net/assets/b0beda65-8a1d-46ae-87a2-f95947ec2714/WorldEnergyInvestment2022.pdf

by imposing windfall taxes on energy companies that are currently making high profits. The revenue collected will then be redirected to households and businesses struggling with high energy bills. [2]

Impact on transition to clean energy

Energy investment is set to increase by 8% in 2022[1] but almost half of the increase is due to higher capital costs rather than expansion of energy supply. Meanwhile, the annual average growth rate in clean energy investment has risen to 12% since 2020 in the areas of renewable energy, energy efficiency and electrification of mobility. This marks a 27% increase in clean energy investments from 2020 levels.

Additional complexity has emerged in the market for renewables. Specifically, there have been significant rises in the cost of critical minerals used in the production of clean energy technologies. Since 2021, prices of lithium, cobalt, nickel, copper, and aluminium have risen significantly beyond average prices over the last decade.[1] This is due not only to rising demand, but also to supply chain concerns which have worsened due to the Russia-Ukraine conflict. The rising cost of critical minerals will adversely affect the cost of clean energy and energy transition.

Nonetheless, the recent soaring prices of natural gas and coal is creating a positive ripple effect for renewables. Why? Because market re-organization does not require renewables to become cheaper in absolute terms, just to be *relatively* more attractive than the alternative. Renewable prices may be rising, but other prices are rising faster and further. As a result, renewables investments are increasingly preferred over fossil fuel - especially for new power generation.

Clean technologies such as wind and solar photovoltaics remain the cheapest option for new power generation in many countries. Emerging technologies in bioenergy, low-carbon hydrogen, carbon capture and storage and battery energy storage are gaining momentum globally.

Impact on ESG and sustainable finance markets

The global energy crisis presents investors and portfolio managers an opportunity to review their ESG and sustainable investment strategies and priorities. There is a logical perception—if not an established fact—that ESG, and sustainable finance practices are crowding out investment opportunities for essential but high emitting sectors further fuel the issue. In 'normal' times this may be as intended, but during an energy crisis ('non-normal' times) it is reasonable to question whether concessions to such an approach need to be temporarily made.

Sustainability financing plays a vital role, and complements ESG investing practices in accelerating a clean energy transition. Sustainable debt issuances and sustainability-linked debt reached more than SGD 2 trillion (USD 1.7 trillion) in 2021.[1] The majority of proceeds raised on green bonds is allocated to financing renewable energy projects. Institutional investors are at the forefront of sustainable debt issuances and have the majority of ownership stakes in energy companies thus giving them an advantage to influence the energy sector. As of April 2022, institutional investors accounted for nearly 60% of the listed value of the largest oil and gas companies, 40% of the largest power companies with asset managers representing about 80% of the above two.[1] This gives institutional investors a stronghold to influence the strategies of energy companies, especially their low-carbon transition.

Sustainable debt has also proven as an effective way to access capital for emerging and developing economies, but the absolute values of these climate finance investments are still low compared to what is observed in developed economies. For instance, emerging and developing economies have two-thirds of the global population while only one-fifth share of global clean energy investments. With decarbonisation and energy crisis as dual issues, emerging and developing economies need to attract new ESG investment capital.

[2] Rankin, Jennifer. 2022. *EU expects to raise €140bn from windfall tax on energy firms.* Sep 14. Accessed Oct 07, 2022. https://www.theguardian.com/business/2022/sep/14/eu-windfall-tax-energy-fossil-fuel-firms

As a final note, Article 6 of the Paris Agreement rulebook from COP 26 will play a role in channelling climate finance towards emerging and developing economies. The understated importance of this follows from the potential and momentum in efforts to coordinate and connect international carbon markets.

Opportunities and challenges

Energy transitions need to take time, as technologies are not in place to supply global energy consumption requirements using clean energy only. Significant transition investment needs to be maintained to service existing oil and gas fields to meet our current energy demands until alternative energy solutions are available. Some estimates place this cost in the territory of SGD 486 billion (USD 340 billion) per year over the rest of the current decade.[1] The transition of carbon-intensive companies plays a crucial role as this will determine the realisation of international climate targets while ensuring energy security and resilient energy supply.

The long-term solution lies in accelerating clean energy transitions through greater investments in energy efficiency, electrification of mobility and renewables. These are also key to European Commission's REPowerEU plan which aims to fast forward the green transition and reduce dependence on Russian fossil fuels by two-thirds before the end of 2022.[1]

CONCLUSION

Tackling rising costs for energy, ensuring security and resilience of energy supply along with meeting net zero targets requires systematic investment in clean energy along with investments in transition of carbon-intensive sectors. Political disputes cannot justify new investments being made on fossil fuel supplies in a world that is striving to meet Paris Agreement goals. The current situation does not need governments and corporations to choose between tackling an energy crisis or a climate crisis rather it is a case where we can solve both with the right investments and policies.

A renewed commitment to ESG investing principles is warranted. The relative value of decarbonised energy systems is higher now perhaps than any time previously. Investors in this space need to remain conscious of the challenges that economies are facing in the need to temporarily draw upon less-clean energy solutions (such as coal). This may reflect in ESG ratings—used among ESG investors for asset allocation—and investors may need to apply careful judgement in thinking about whether short-term deviations from long-term environmental performance targets can be accommodated. Considering such issues will not be easy and implies a need to carefully balance environmental versus social criteria, at least in some cases. Burning coal in Germany comes with a significant carbon footprint but will simultaneously avoid loss of life during a harsh winter season if homes cannot be heated.

WHAT TO LOOK OUT FOR

- COP 27 on climate finance
- Continuous monitoring of energy markets
- Impact of switching to coal on companies' ESG ratings

David, C. Broadstock, PhD is a Senior Research Fellow at the Energy Studies Institute, National University of Singapore.
Keerthana, Gopinath, is a Research Associate at the Energy Studies Institute, National University of Singapore.

Keywords: Energy crisis, Environmental, Social and Governance (ESG), clean energy transition, sustainable finance, ESG Investing.