FAST FORWARD ZERO

A pivotal moment

How to leverage today's energy crisis and gain a competitive advantage

Today's energy crisis has challenged traditional approaches to business and left organisations scrambling for solutions. Winners will use the energy crisis as a catalyst to accelerate their transition towards greener businesses models and leverage the associated competitive advantages in the long term.

A publication by FAST FORWARD ZERO

Jan 2023

Today's energy crisis is a symptom of a bigger disease: our over-reliance on fossil fuels.

Whilst the war in Ukraine has been a triggering factor that has sent energy prices spiraling to new highs,

we must not forget the **root problem : our over-reliance on fossil fuels, leading to climate change, with its devastating consequences.**

Recognizing this now, leads to better chances of societies finding protection and operations leveraging the competitive advantages of green businesses models.

Calm thoughts in times of crisis

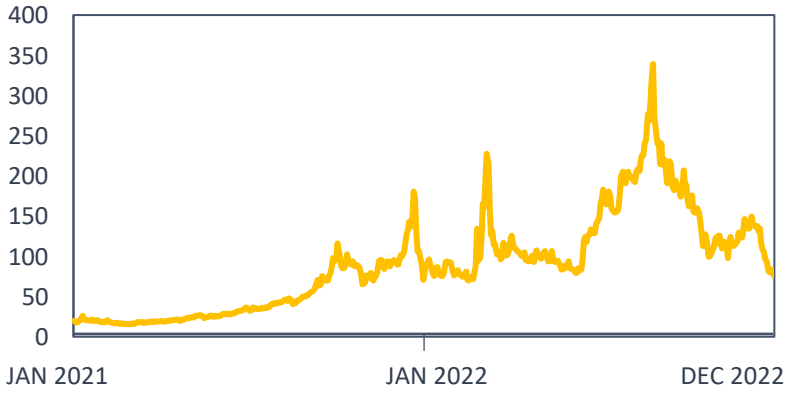
During times of crisis, we are quick to leap to conclusions and act in the short-term. In recent months, we have seen examples of climate policies being unfairly criticized and long-term decarbonization goals decreasing in priority, as countries and businesses each scramble for rapid solutions amid the current energy crisis. Now more than ever, it is important to step back, understand how we got here and recognize the underlying issue at play.

Recent events

If we look back to 2021, the tightening of energy markets was already apparent. The standout driver was the rapid increase in demand for gas and coal as economies rebounded from the lows of the pandemic, but this was not the only variable that was impacting prices. Weather events had affected wind and hydropower generation, maintenance work was catching up from lockdown induced delays and more generally, the world was emerging from a period of weak oil/gas investments and inadequate ramp-up in renewables.

Fast forward to the invasion of Ukraine in 2022 and the crisis spiraled to new extremes. The US & EU announced a range of sanctions on Russia, many countries rolled out plans to phase out Russian oil & gas and Germany decided not to approve the new Nord Stream II pipeline. As Russia began limiting export pipelines and Europe rushed to alternatives, previous global energy flows were reshuffled. Consequently, LNG and oil prices rose dramatically.

Dutch TTF Natural Gas Futures , EUR/ MWh



The impacts

The impacts of this have been far reaching. On a humanitarian level, the cost of living has soared, with inflation disproportionately impacting the most vulnerable and pushing families into poverty. On an economic level, we have seen countries edging slowly towards recession. At a time when countries are still reeling from the effects of the Covid-19 pandemic, the options that governments have to cushion the blow have been squeezed.

When we consider the impacts on industries and businesses, it is clear that the effects have also been uneven. Regionally, European and Asian industries have been especially exposed. More specifically, it is those energy intensive businesses, dependent on fossil fuels and exposed to spot prices that have been hardest hit (hydrogen, fertilizers, electro-metallurgy etc).

Examples: In September 2022, Eurometaux reported that 50% of the EU's aluminium and zinc capacity had already been curtailed due to the energy crisis. Alcoa has been among those forced to curtail capacity in the Aluminium space, citing exposure to spot prices above $600 per megawatt hour. Meanwhile, Europe's fertilizer industry has been hit by curtailments in ammonia and nitrogen production. This has included Yara, who in August announced it will have "curtailed an annual capacity equivalent to 3.1 million tonnes ammonia and 4.0 million tonnes finished products".

Recognising the underlying problem

That brings us to today, with many businesses facing sharp energy challenges and difficult decisions to make. Asking government for subsidies will help calm the cost fever, but not treat from the deeper disease. Whilst the crisis is complex, with many factors at play, it is clear that a bigger issue is at place: a historic addiction to fossil fuels that is accelerating climate change and catastrophic weather events. Greener business models and locally sourced renewables could be sheltering organisations from market volatility and supply insecurity if they had been developed quicker.

For many years, buyers of energy have been lulled into a false sense of security that imported fossil fuels were a stable and secure source to drive economic growth. That reality is no more, and energy management is significant to all companies; not just those operating in energy intensive sectors. To have any chance of finding successful sustainability solutions, we must recognize these new realities.

Companies that accelerate their decarbonization strategy will be the winners

Previous crises show us that there will be winners and losers that emerge from this crisis.

A key determinant will be the ability of organizations to navigate both the short and long term;

specifically finding opportunities for structural transformations (energy efficiency, renewables, change of business models, decarbonisation of supplies) that de-link businesses from fossil fuels.

A pivotal moment

For many companies facing imminent threats to tomorrow's energy security, long-term planning will be difficult to prioritize. Instead, the focus will be on ensuring survival. In industries strongly dependent on gas for thermal energy (food, beverage, chemistry, metal transformation etc.), this may mean temporarily switching from gas to coal and diesel, thus driving emissions higher. For others, the focus will be rerouting to new sources of the same fossil fuels or even curtailing production.

A reactive approach on its own may bring short-term relief but it will not address the underlying problems. Businesses chasing new fossil fuel sources will only prolong their exposure to market volatility and supply security over the long-term and find themselves further behind in the race to deliver low carbon solutions: a variable that looks set to dictate the requirements for many markets and customers over the decades to come.

Winners & losers emerge from crises

What past crises have shown us, is that there will be winners and losers that emerge from this situation. One can hypothesize that the winners of today's crisis, will be those that balance the short and long-term, leveraging solutions that help address the underlying problems. The winners will shift OPEX energy costs through CAPEX onto renewable power, energy efficiency projects and greener business models.

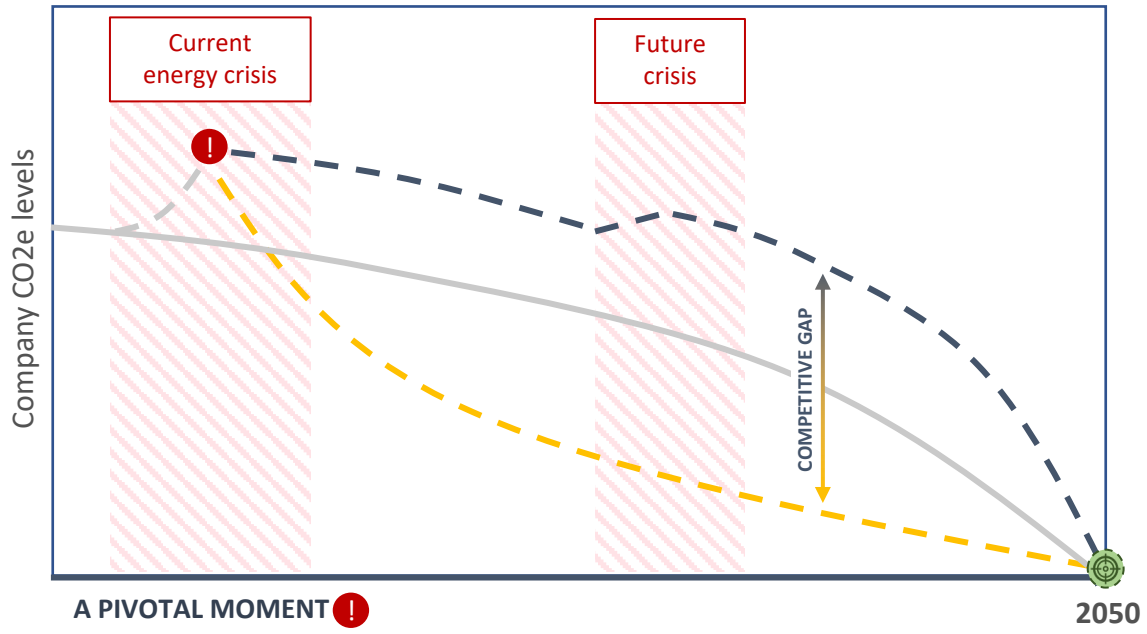
The rewards for those that achieve this pivot will be vast. From a sales perspective, lower emission companies will be positioned to serve the growing number of carbon sensitive customers, whilst achieving higher profits in return for lower carbon goods. Businesses will further be better equipped to cope with new future energy crises. Meanwhile, organisations will find huge cost savings as carbon pricing becomes increasingly applied to global markets.©©

STRATEGIC MINDMAP FOR APPROACHING THE ENERGY CRISIS

There are 2 ways to approach today's crisis:

- Chase after the new supply lines and re-hook onto imported fossil fuel power
- Leverage structural transformations (energy efficiency projects, renewables, change of business model, decarbonize supplies) as a means of de-linking business with fossil fuels and GHG emissions.

The competitive gap will be proportional to the future carbon prices in developments everywhere



The business case to decarbonize has never been stronger. Decarbonization levers are available to businesses

Considering that carbon taxes and prices will inevitably develop everywhere,

the incentives to decarbonize have never been greater.

Optimal strategies can reduce exposure to fossil fuels, and accelerate decarbonization.

Organizations have a wide array of tools available which should be tailored towards their business needs.

The business case for change has never been stronger

The business case for accelerating decarbonization projects has never been stronger. By improving energy efficiencies, reducing the reliance on fossil fuels and implementing "green" business models, organizations can not only navigate a way out of today's crisis, but also locate a path towards a competitive future built on low carbon values.

Energy efficiency

By decarbonizing, businesses will limit both their energy burden and carbon footprint. There are numerous ways a company can improve its energy efficiency, ranging from building maintenance (lighting/ heating/ insulation) to technological upgrades. Examples of technology improvements can be found in the Aluminium space; breakthrough technologies (inert anodes), smelter pot upgrades and more advanced feed systems can improve energy consumption and emission levels.

Renewables

By increasing the share of energy from on-site renewables, companies can reduce their exposure to volatile energy markets and traditional power sources which are more vulnerable to political escalations. EU policy makers have been streamlining permits and regulations to fast-track renewable installations. The opportunities for renewables can also be extended through selective electrification. By switching thermal energy processes to electric power supply and updating fleets to electric alternatives, the share of renewables can be broadened.

Business model transformation

For some organisations, more transformative technologies and business models can be adopted to mitigate energy exposure and develop low carbon competitive advantages. In the metals space producers may seek to include increased levels of recycled content, which require less energy to produce. Secondary aluminium for example, is widely quoted as requiring 95% less energy in its production than primary Aluminium. Downstream producers may further seek to transform product design, enabling closed-loop recycling. This can include the standardisation of alloys or partnering with businesses across the supply chain. Organisations may also shift focus to more sustainable markets such as EVs or green construction. To drive transformation, internal carbon pricing can further ensure investments are made with carbon considerations in place.

Supply Chain Decarbonisation

By working with suppliers that are actively investing in their own decarbonization, businesses can ensure their own supply chain remains resilient to energy challenges. Partnering on investments can also drive down the supply chain emissions, accelerate low carbon technological innovations and widen a company's green product offering.

The options are vast but must be tailored

Organizations have a wide array of decarbonization levers they can reach for during todays energy crisis. The most appropriate solutions will vary significantly depending on the organization's industry, capabilities and goals. Timing is critical and for many, this means preparing now. This is especially true for those organizations sheltered by government support, who will likely find such measures finish before the crisis ends.

STRATEGY FRAMEWORK
To leverage the energy crisis and decarbonize

A PIVOTAL MOMENT

How to leverage today's energy crisis and gain a competitive advantage

FAST FORWARD ZERO

Towards a decarbonized, more circular and inclusive economy

We help business leaders and investors to

1) transform businesses to NET ZERO, circular and inclusive operating models

2) create collaborative coalitions to shape better ecosystems and solve complex problems

Jerome Lucaes, President, Fast Forward Zero

If you are interested to discuss the topic, please reach out to us:

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