

# MARKET AND OPPORTUNITIES

The continuation of the global energy crisis has exacerbated the need for countries to find alternative sources of supply to provide energy security and has further drawn into sharp focus the importance of demand management and energy efficiency.

It is now clear that the energy markets face a prolonged and fundamental challenge in balancing demand from economies seeking to grow with restricted and expensive sources of supply.

Pressures on governments to move away from, albeit for a brief period of time, their pathways to decarbonise energy systems have grown in recent months.

## Investment policy

The Company invests in environmental infrastructure such as infrastructure assets, projects and asset-backed businesses that utilise natural or waste resources or support more environmentally friendly approaches to economic activity, support the transition to a low carbon economy or which mitigate the effects of climate change.

### Generation of renewable energy

## Market developments

Factors including increasing global population, rising living standards, increasing urbanisation and greater scientific, public and political focus on the effects of climate change have all served to increase the importance and scale of the environmental infrastructure market globally.

Costs of renewable electricity fell by up to 90% in the last decade and was more cost effective in over 90% of the world compared to fossil-fuelled power. However, global CO<sub>2</sub> emissions from heat and electricity production increased in 2021 to an all-time high of more than 14Gt. The EU recently announced at COP27 an updated and more ambitious plan to cut emissions by 57% by 2030 compared with 1990 levels.

### Sustainable solutions

The contribution renewable energy generation makes to decarbonisation and the pathway to net zero is clear. However, there are additional contributing factors such as food security, biodiversity and new green technologies such as hydrogen electrolyzers that can all play an important role in developing sustainable solutions for our economies.

### Low carbon and energy efficiency

The global energy crisis has brought into sharp focus the need to embrace energy efficiency as a mitigation measure. As part of the REPowerEU plan in May of this year, an energy efficiency target has been set of 13% by 2030 compared to 2020 levels. Industry is also expected to contribute to a low carbon economy through electrification, energy efficiency and use of renewables.

### Supply and treatment of water and processing of waste

In response to the need to decarbonise, many industries are turning to technology to accelerate this transition. In the waste industry, the use of carbon capture, utilisation and storage ("CCUS") installations can be seen as essential to this effort. In the International Energy Agency's defined pathway to the Paris Agreement outcomes, it sets out that 15% of global emission reductions should come from CCUS. In 2021, 27 CCUS projects were in operation and five under construction, yet the installed capacity needs to increase 100 times by 2050.

### Geographic spread of investments

The challenge of addressing climate change is a truly global one. The commitment to invest into environmental infrastructure as a means to decarbonising economies is demonstrated by those countries providing sustained and additional regulatory and financial support to this sector.

This places a risk that renewable sources are provided less support over their fossil fuel counterparts. Yet the benefits that the wind, solar, biogas and biomass sectors, to name a few, can bring, remain compelling. The energy trilemma of security, affordability and sustainability has never been more challenging, yet governments cannot ignore the importance of all three elements.

Shortly before publication of this report, the government announced the mechanism by which it intends to capture a share of revenues earned by renewables generators currently benefiting from high electricity prices. The "Electricity Generator Levy" (the "Levy") requires in-scope generators to pay 45% of revenues generated from a price in excess of £75/MWh. This Levy will impact some of JLEN's generating assets but will allow investors to price opportunities, taking this into account. Further analysis on the impact of the Levy to the Company is undertaken later in this report.

## Investment outlook

The outlook to build out further renewable energy generation assets remains positive. The inclusion of biomass as a contributor to the EU renewable energy mix has also been supported, although at a level not exceeding the average recorded between 2017 and 2022.

The role that building sustainable, energy efficient and low carbon solutions to provide affordable food to a growing population through controlled environment infrastructure presents clear investment opportunities. A sector is rapidly growing to support hydrogen solutions to decarbonise industry and transport, particularly where direct government is provided.

Greater levels of flexibility in the form of battery storage, electric vehicles, pumped hydropower and hydrogen all play an important role alongside improved system coordination and low carbon transport infrastructure such as biofuels. Around 30% of EU primary steel production is expected to switch to green hydrogen by 2030, supporting the development of the hydrogen sector.

Across Europe, both new and established energy-from-waste facilities could provide investment opportunities for CCUS. In the UK from 2023, local authorities will be required by law to separately collect food waste from households. This measure to reduce biodegradable waste being landfilled and reducing greenhouse gas emissions will create investment activity for new plants and owners of existing ones with expansion potential.

JLEN's mandate supports geographic diversification, reducing its exposure to the UK power market, regulatory framework and weather systems. The Investment Manager can take advantage of its in-country presence across Europe and Australia to generate investment opportunities outside the UK.

Despite these headwinds, the market remains buoyant with investment opportunities in both operational, construction stage and development stage assets across a wide range of sectors.

Recently, JLEN has demonstrated through its investments into controlled environment infrastructure that, whilst energy infrastructure remains highly important, the impact that agriculture has on greenhouse gas emissions and the influence it has over meeting net-zero pledges remains significant. These investments are less impacted by the turmoil in the energy markets, instead recognising that building sustainable, energy efficient and low carbon solutions to provide affordable food to a growing population provides compelling investment opportunities for diversified environmental infrastructure funds such as JLEN.

