



## In Brief: Powering a way to the 'zero carbon' future.

This briefing is the first in a series in which we explore some of the businesses and industry sectors where we find technology driving transformation and change, far away from the crowded handful of US Tech and their internet - and index - hegemony. In some respects we hope this is a reflection that technology has always been at the heart of economic progress, whether research and development that drives innovation, or skills and process enhancement that drives productivity: the origin of the term is after all 'method shared', roughly, for any classical scholars out there. This constant and pervasive notion of technology is really the beating heart of *endeavour*, that prolonged industrious effort that Adam Smith identified in his *Wealth of Nations* as the foundation of prosperity, wellness and social justice, or as the Gates Foundation brought it up to date more recently, 'the silent miracle of human progress'.

*Important risk warning: the information and opinions expressed here are solely the opinions of Tellsons Investors LLP and should not be construed as advice nor form the basis of any investment decision. They are intended merely as illustrations of concepts Tellsons believe to be central to their investment process but should not be taken as detailed explanations or validations of that process.*

Companies highlighted in this article:



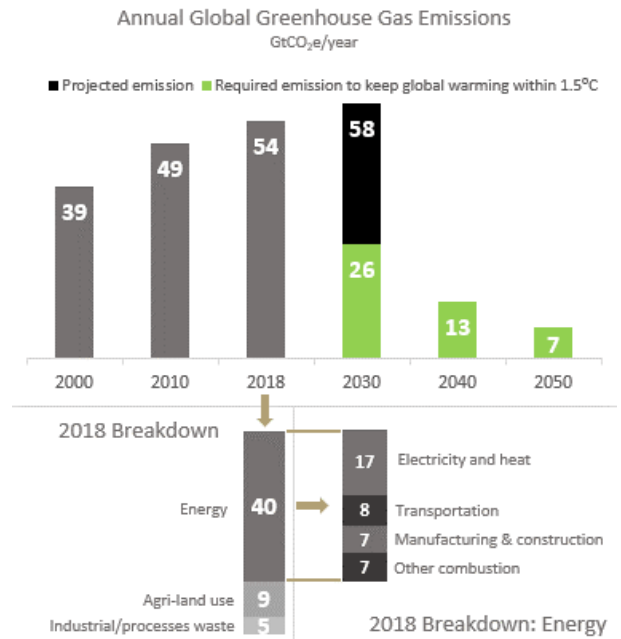
Action against climate change has accelerated in recent years impacting many industries and the way we live our lives. The technologies emerging to meet the climate challenge are forcing a convergence in power generation, distribution, industrial processes and consumption to reach across multiple sectors of the economy. These technologies are transforming the way we make power, where it comes from, how we can store it, clean it, move it, use it, use less of it and spare it. The EF Tellsons Endeavour Fund has always captured above average sustainability factors across asset classes and here we highlight a number of investment themes at the vanguard of this climate response and which form the core of Endeavour's leadership in sustainable investment\*. Collectively, as a sustainable theme, they comprise an important element of the Endeavour Fund's risk-adjusted return profile and long-term sustainability.

\*Sustainalytics/MorningStar Sustainability rank 3rd centile, Jan'21.

## Transition and convergence

- from fuel to power
- from energy to utility

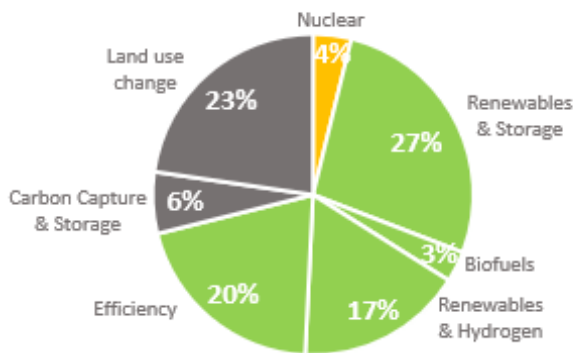
A number of industries are developing new and increasingly convergent technologies and reconfiguring operations and processes to meet the climate challenge: to halve global carbon emissions by 2030 and achieve net zero by 2050. The larger part of the world's carbon emissions is generated in the production of energy, and mostly from the combustion of black energy – the fossil fuels coal, oil and natural gas. See fig.1 (source: Ørsted AS, "Taking action" reproduced by kind permission). Emissions will be reduced through multiple, varied solutions constituting a whole new value chain as indicated in fig.2 below: in summary, half of the progress will come from energy transition and half will come from usage transition, changed behaviour and efficiencies. See fig. 2 (source: the IPCC, Intergovernmental Panel on Climate Change, Longspur Research).



Within energy, green power needs to increase its share fivefold to 60% and electrification to substantially replace fossil fuels which should be phased out altogether.

**Royal Dutch Shell** has been a long-term holding for the Endeavour Fund. The original investment case was their strategy to re-focus exploration and production away from heavier emissions oil towards lower emissions natural gas. Management recently unveiled its most comprehensive strategy review in decades where it announced the rundown of its oil exploration

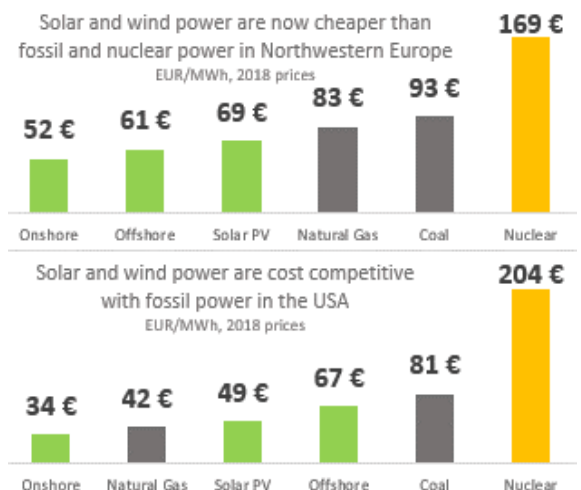
### Solution to Decarbonise



by almost 20% and traditional fuel products by 55% by 2030 and at the same time increased investment of up to 15% of capex in renewables and carbon capture, together with significant leverage of its integrated distribution network more akin to a utility. Strong cashflow will finance the acceleration of this transition whilst also maintaining the scale of natural gas capacity for reliable and affordable base-load electricity generation the world will still rely upon for the journey to net-zero according to the IPCC. Given our practical and pragmatic approach to sustainability, where we don't negatively screen out companies or industries for investment on account of their inherent environmental or broader sustainability profile, we continue to back this energy giant to lead the development of alternative energy technologies and accelerate progress towards net zero.

**Ørsted** is another long-term holding for the Endeavour Fund since its previous incarnation as Danish Oil and Natural Gas. The company has migrated from a community-owned local energy utility to become the developer and operator of the world's largest installed base of offshore wind turbines (c.25%), including most of what we have off our own East Coast here in the UK. Over the next 10 years Tellsons envisage significant further growth, also in emerging green hydrogen capabilities, transforming the utility into a renewable energy powerhouse.

In recent years, the technological advances made by these kinds of companies and the scale of operations they have built have significantly reduced the build costs in solar and wind generation, so much so that in much of the world green



power has now become cheaper than fossil fuel, see fig.3 above (source: Ørsted AS: Taking Action').

Spanish utility **Iberdrola** is currently the world's second largest renewable energy generator with a current installed capacity of 32GW, most of which is coming from onshore wind and hydro-electric. It has an ambitious growth plan to almost treble its installed capacity to 95GW by 2030, renewables comprising 83% of its portfolio and seeing natural gas dwindle to 14% at the same time.

So as oil and gas exploration and production transitions to renewable clean power through green technologies, and utilities transition to production as well as distribution, we see a convergence between these two sectors. This convergence offers some very different and highly attractive risk-adjusted investment profiles by blending dividend income with more growth, more growth with regulatory protection, long-term contract values incorporating inflation pricing, and perhaps better supply and demand volume stabilisation through-cycle.

## Technology solutions

- hydrogen, storage, mobility, consumption
- a whole new multi-industry value chain

Supporting the principal hydrocarbon transition there is a plethora of contributing technologies emerging such as waste and plastics recycling, biomass, solar, and carbon sequestration and offsets through forestation and wetlands, to identify a few. **Alfen** is a Dutch industrial company that provides decentralised 'smart' grids connecting smaller renewable energy production sites with the wider grid. Alfen also provides energy storage solutions for utility companies and EV car-charging stations.

Advances in hydrogen technology are particularly timely as it is a clean fuel and abundantly available in water. However, it is highly energy intensive to separate from water via electrolysis. 'Intermittent' renewables, sources that produce energy when their generating conditions permit – when the wind blows or the sun shines – can be allocated to cost-effective hydrogen separation when the energy they generate is not needed and would otherwise be wasted, wind in the middle of the night for example. All mainstream forms of transport are starting to deploy hydrogen with fuel cell technology, from cargo ships to trains, heavy goods trucks and hybrid cars.

**Ceres Power** is a UK-based engineering company that has developed a modular fuel 'SteelCell' technology that will ultimately be used with hydrogen but can in the interim be used with natural gas, liquid or biofuels. Ceres has signed partnerships with leading original equipment manufacturers to license the technology in return for royalties and get to commercialise more easily for mass market applications. Such partnerships are combined heat and power with Miura in Japan, data centres and electric vehicle (EV) charging with Bosch in Germany, EV bus and truck power systems with Weichei in China, and scale infrastructure for modular solutions with Doosan in Korea.

**Linde** is the world's largest industrial gases company that has grown over the past decade or so through the consolidation of British Oxygen in the UK and Praxair in the US. The company has an unrivalled hydrogen network including 150+ production sites around the globe, 1000 km of pipelines and the largest liquefaction capacity in the world. Linde has been at the forefront of clean hydrogen since the early days of the technology 30 years ago and is today a leader in clean hydrogen fuelling stations servicing cars, trucks, buses and trains.

## Complement, substitute or obsolete

- some technologies will complement, some will substitute for others
- some technologies and industries may become obsolete altogether

Investments in other sectors like auto manufacturers, consumer staples, materials and food all offer opportunities for Endeavour to invest further in this theme. **BMW** and **Toyota** as leading electric and hybrid vehicle manufacturers have been investing heavily in EV technology and together with other European and US peers are stepping up to the challenge from Tesla to phase out combustion drivetrains altogether. Amazon and Alphabet amongst others have driverless automation programmes under advanced stages of development which may transform the very notion of mobility and car ownership quite beyond their hegemony of the internet: we see Amazon's ZooX, as little white blood cells running through



the arteries of the community moving goods and services and people, directed by its leading cloud data capability and leveraging the Amazon global logistics network already in place.

Agricultural land use is another important piece in the decarbonisation puzzle as the increasing demands for livestock to feed the global middle class's insatiable appetite for meat products has driven this source of emissions to all-time highs. Food companies **Unilever** and **Nestle** are innovating plant-based protein as a meat-substitute and the specialist in this new category **Beyond Meat** is working with **McDonald's** and **Pepsi** to develop their own ranges of plant-based foods. **Givaudan** in turn develops the flavours and fragrances for all of them to optimise the tastes and textures of these emerging product categories.

## Conclusion

In this briefing note we have presented some of the businesses and technologies powering the way to a world with net zero carbon emissions over the course of the next generation. These are not merely companies acting to deliver sustainably on the world's climate goals but they can also offer compelling investment cases in their own right: the total return of this collection of company investments on an equal-weighted basis would have been 71% in 2020\* alone and represents consensus estimate forward earnings growth of 21% on average. From time to time the valuations attributed to this kind of innovation and growth can appear expensive and the execution risks can be considerable, but the vision, the expertise, the intellectual property and the scale and trajectories of development can afford the confidence to remain invested.

By illustrating how technological innovation is being deployed across industries and sectors, we can better understand the convergence, disruption and change in so many of the ways in which we live our lives to meet the growing needs of the global community. Hopefully, we can convey the idea of just how pervasive and prevalent technology is wherever we look, in the home and the workplace and in the products and services we consume, far and wide beyond the crowded phenomenon of the 'internet of things'.

*\*Local currency terms; some of these investments were not held in the Endeavour Fund throughout the calendar 2020 period in its entirety; their weights varied and on average represented 15.9% of the Fund and contributed a gross 6.1% total return, equating to 38.4% on a fully-weighted basis. No representation is made as to the ongoing investment of any of these companies in the Fund.*

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