

“High hopes for low carbon?”



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### Advancing the renewable energy transition

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SUMMARY: The burgeoning renewable energy industry was severely undermined after the 2008 global financial crisis — leaving traditional forms of energy facing little competition. The picture ten years on is almost unrecognisable. Tom Nelson, head of Natural Resources, Investec Asset Management, argues that we are now in the early stages of an extended growth opportunity in the renewable energy sector, the size of which remains misunderstood and underappreciated by most market participants. He explains why the risk of significant climate change will continue to drive the expansion of the sector. Is this an opportunity for long-term investors to exploit?

*“Things take longer to happen than you think they will, and then they happen faster than you thought they could.”* Professor Rudiger Dornbusch, MIT economist

### Fast becoming a structural growth sector

What a difference a decade makes. The aftermath of the 2008 global financial crisis saw the burgeoning renewable energy industry severely undermined by reduced subsidies from key host governments, excessive leverage among leading industry companies, and a collapse in hydrocarbon prices — leaving traditional forms of energy facing little competition. The picture ten years on is almost unrecognisable, and there are two principal reasons for this. First, the technological improvement and cost reductions in solar and wind, in particular, have meant that renewable energy can be cost-competitive with hydrocarbons without the distorting effect of financial subsidies. Second, the world has woken up to the urgency of the climate change threat. Therefore what then looked like a speculative technology sector against a backdrop of climate change indifference and even scepticism, now looks like a structural growth sector driven by improving economics and a moral imperative to succeed.

### The next ‘energy transition’

The world is in the early stages of an energy transition. We have experienced energy transitions before, notably in moving from burning biomass to burning coal and then oil and gas. While this one will not mirror exactly any of the previous transitions, there will be similarities in the speed of technological advancement, the improving economics, and the rate of mankind’s behavioural change. Vaclav Smil’s excellent 2010 *‘Energy Transitions: History, Requirements, Prospects’*<sup>1</sup> gives an authoritative overview of what has happened in the past and what we might reasonably expect in the future. Our interpretation rests on two central premises: first, that the speed of the transition is exceptionally difficult to forecast, as we are seeing in the wildly divergent forecasts for the adoption of electric vehicles, and second, that multiple sources of energy will have an important role to play in the

<sup>1</sup>Smil, Vaclav, *‘Energy Transitions: Global and National Perspectives’* (Second expanded and updated edition), Praeger; 2 edition (31.12.16).

transition. We believe the market and the world’s thought-leaders are too fixated on the demise of ‘Old Energy’ and are not focused enough on the opportunity presenting itself in renewable energy.

### Accelerating growth in the sector, amid falling costs

So what type of growth rates can we expect from renewable energy, and over what timeframe? Our 2016 paper, *‘Our energy future — creating a sustainable energy system’*<sup>2</sup> forecast that 5% per annum was an achievable growth rate to 2050, with both solar and wind closer to 7%. The baseline expectation for overall global electricity demand growth was 1.5-2% per annum. The Bloomberg New Energy Finance *‘New Energy Outlook 2017’*<sup>3</sup> estimates that wind and solar will account for 48% of installed electricity generation capacity by 2040, compared with 12% today. Notably, installed solar capacity is forecast to increase 14-fold over that timeframe. Equally eye-catching is the expected improvement in efficiency and relative economics: the LCOE (levelised cost of electricity) from solar photovoltaic (PV) systems is forecast to drop by a further 66% by 2040, while onshore wind’s LCOE is likely to fall by 47%. This incremental cost deflation would be a remarkable achievement, particularly in the context of what has been achieved over the last 40 years (Figure 1, overleaf).

### A key strategic focus for long-term investors

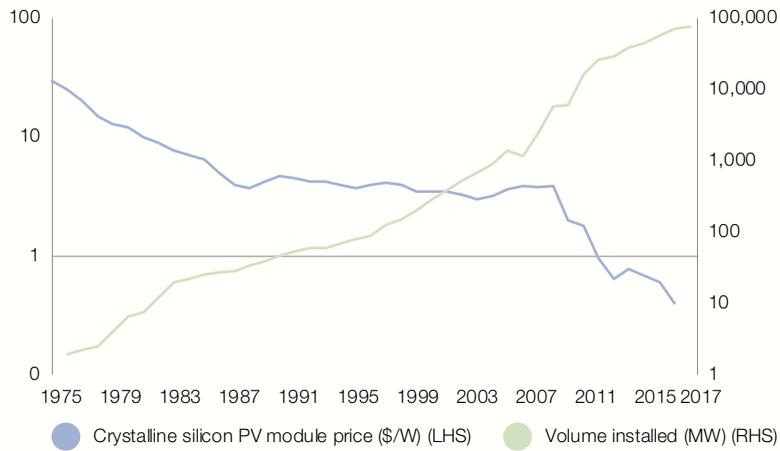
The speed of the transition is arguably of secondary importance. What is clear is that the energy transition is underway and we believe that the long-term growth prospects for the renewable energy sector are bright. This is the first of many reasons why the sector should be of key strategic interest for allocators of long-term capital. In a low-growth and indebted world, where many asset price levels which suggest future returns could be substantially lower, the renewable energy sector, in our view, should present a repeatable and consistent area of growth for several decades. The uncertainty of the timing and speed of the transition should also play into the hands of long-term investors. There will be heightened volatility, as there always has been

<sup>2</sup>Investec Asset Management, *‘Our energy future – creating a sustainable energy system’*, June 2016.

<sup>3</sup>Bloomberg, June 2017. <https://about.bnef.com/new-energy-outlook/>.



Figure 1: Solar installed capacity and module price, 1975-2017



Source: Bloomberg New Energy Finance, August 2017.

in renewable energy equities, due to the relative immaturity of the sector and the emergence of new technologies and disruptive influences. But long-term investors should be more resilient to the near-term volatility. This is due to their investment time horizon. We can also expect to find considerable market inefficiency, as this is a complex and emerging growth area which is likely to generate significant behavioural biases and mispricing of assets. However, the long-term investor can take advantage of these inefficiencies to gain exposure to structural winners at a relatively early stage.

### An attractive, liquid opportunity for active allocators

There are other characteristics of the sector in the public market arena which lend an advantage to investors and allocators who are not hamstrung by a short-term view. One characteristic is liquidity, which is improving at a rapid rate as the sector emerges and matures, but in certain sub-sectors and stocks it is still a trading complication — but not for the investor with a long-term view. Similarly, the sector is poorly represented by public benchmarks (which help to set prices, measure performance, or work out amounts payable under financial contracts). This lack of representation is because many renewable energy companies encompass everything from utilities to early-



stage technology start-ups. Using traditional GICS<sup>4</sup> sector classifications we find leading renewable energy companies in the Industrials, IT, Financials, Utilities and Consumer Discretionary sectors — but rarely in Energy. Such is the paradox of a rapidly evolving and disruptive market entrant. Furthermore, the absence of accurate benchmarks tends to deter passive solutions and tracker funds, offering a potential advantage to the active long-term allocator. In equities, we believe that long-term exposure is best achieved by allocation to a concentrated portfolio of high-quality companies which display a clear competitive advantage and barriers to entry. Companies which display these characteristics should consolidate and be structural long-term winners.

### Shareholder and consumer friendly holdings

Another important advantage of long-term investing, which is of great relevance to the renewable energy sector, is active ownership. Unlike the monolithic hydrocarbon companies, that have dominated both the energy and financial markets in the last century, today's renewable energy companies are more shareholder friendly, consumer facing, and open to direct and constructive engagement. In many cases, they behave more like consumer companies and they need to: competition is fierce and the prize is enormous. We expect investors in these companies to engage closely with all aspects of corporate performance, and that this will be of mutual benefit over the long term.

### A growth opportunity for renewable investors

After considering all the evidence, we believe this sector is a prime candidate for the investment of long-term capital. In our view, we are in the early stages of an extended growth opportunity, the size of which remains misunderstood and underappreciated by most market participants. Despite the widely condemned decisions by President Trump to withdraw the US from the Paris Agreement, the risk of significant climate change should ensure that the expansion and growth of the sector remains at the forefront of policy agenda. For renewable investors, the future is truly bright.

<sup>4</sup>GICS: The Global Industry Classification Standard (GICS) is an industry taxonomy developed in 1999 by MSCI and Standard & Poor's for use by investors.