WHEB

LEADING SUSTAINABILITY INVESTOR

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WELCOME

ISSUE ONE

Welcome to the first edition of the WHEB Quarterly

In spite of the significant market dislocations experienced in financial and wider markets over the last five years, the vast majority of investment professionals retain the same attitudes to risk, governance and ownership in 2012 as they had in 2007. This first edition of the 'WHEB Quarterly' is intended to provide a rather different perspective. Grounded in our conviction that we are in the early stages of a profound shift in the way industrial societies are organised and operate, we aim to provide a regular source of provocative contributions to the vigorous debates on these changes and their implications for businesses and for the financial community.

All too often, financial professionals see the environmental agenda as driven by dogma that has little to do with commercial realities and the cut and thrust of profitable enterprise. In this edition we present evidence that demonstrates the financial value that resides in progressive environmental practices and technologies. Seb Beloe discusses how leading businesses already see the environmental agenda as a source of real value in underpinning profitable activity. Ben Goldsmith explores how 'green' infrastructure is attracting increasing attention as a more effective and efficient alternative to the traditional 'grey' approach. And finally, Megan Bingham-Walker describes the work that WHEB Partners has done to help inform the UK Government's approach to electricity market reform and to encourage a 'smarter' approach to the provision and distribution of electricity.

We hope you enjoy the Quarterly and would welcome your comments and feed-back.

THE CORPORATE ALCHEMISTS

TURNING LIABILITIES INTO ASSETS

by Seb Beloe, Partner, WHEB Asset Management

Disused china clay pits are among the most barren environments for plant life that exist in the British Isles. They are in fact more reminiscent of the surface of a foreign planet and for that reason one of the few practical uses for them has been to serve as the backdrop for sci-fi films. But it was in just such an inauspicious place that Sir Tim Smit conceived and built the Eden Project in Cornwall. An enterprise that has not only regenerated a rich ecological fabric in the pits, but also employs over 400 staff and has brought economic benefits to the region of over £805m. Turning a liability or threat into a productive asset, is a skill that has underpinned some of the best-known corporate turnarounds. Perhaps the most famous example of this was when Thomas Watson the Chairman of IBM in 1943 stated that he thought "… there is a world market for maybe five computers". As the business then went on to become one of the largest and most influential manufacturers of personal computers in the world.

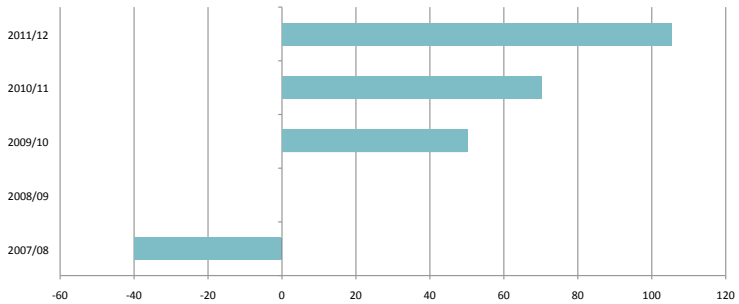
This skill, to turn a liability or threat into a productive asset, is a skill that has underpinned some of the best-known corporate turnarounds.

But equally some of the best-known corporate failures in recent times have involved companies that have failed to face up to threats that face their industry. The experience of the Eastman Kodak company and its failure to appreciate the significance of digital photography is a classic case-study in failing to face up to emerging market threats. In Kodak's case their nemesis, the digital camera, was originally a Kodak innovation, but further development was shelved after managers saw it as a threat to their core business.

ENVIRONMENTAL ISSUES - FROM RISK TO RETURN

In many ways, environmental issues today are perceived as a threat to business in the same way that the digital revolution was seen as a threat to Kodak's traditional camera film business. At best, environmental issues were something to be ignored or avoided. At worst, they were perceived as nothing more than a cost. This attitude is widely held in some areas. Witness for example the UK Chancellor's comments earlier this year framing high environmental standards as a threat to economic recovery. Traditionally, environmental management has been seen as a compliance issue for businesses too. I spent many years working in the US with a leading industry initiative working to promote environment, health and safety best practices within their membership. Their overriding concern during this period though was how to ensure that their members were seen as more than just box-ticking functionaries.

Figure 1: Net Benefit to Marks & Spencer from 'Plan A'



The UK-based fuel distributor MRH, which owns 350 petrol stations across the UK, has succeeded in cutting its energy costs by 90% through the replacement of lighting systems across its portfolio and saving £260,000 annually.

In the past few years this view has been consigned to the dustbin by leading businesses. There is now overwhelming evidence that well-crafted environmental strategies yield positive returns to businesses. Marks and Spencer was able to add £105m or the equivalent of 15% of pre-tax operating profit for their 2011-12 financial year from their comprehensive 'Plan A' sustainability strategy (see figure 1). The CEO of The Coca-Cola Company has stated that 99% of their corporate sustainability initiatives yield an attractive IRR, and the list goes on. General Motors saves over US$1bn every year as a result of its efforts to reduce solid waste[2]. BT recoups £18m in annual energy savings from its energy efficiency initiatives that cost it £17m to establish[3], and returns are so good that they are launching a service to their customers on the back of their own experience.

WASTE ALCHEMY

These companies and many thousands more have realised that the environmental agenda is not a compliance agenda, but a source of additional value and cost saving. Nowhere though is the label of corporate alchemy more apposite than in the waste industry. Colin Drummond the CEO of Viridor Waste (profiled in Channel 4's Undercover Boss series) no longer considers his business as about waste, but about resources. Originally a business that collected its customers' waste and dumped it in holes in the ground, the company is now able to extract real value by channelling the materials towards new markets where they are used either to generate energy through incineration or anaerobic digestion or are turned into valuable raw materials through composting or recycling.

Remarkably, supermarkets including Sainsbury's now no longer dispose of any food waste to landfill. Instead much of the waste goes to anaerobic digesters where it generates methane for injection into the gas grid with the remaining residue used as a soil improver. Marks & Spencer's have even discovered that waste clothing (1 million tonnes thrown away every year in the UK) offers a potential source of raw fibre to hedge expensive and volatile commodity prices. For high value fibres, the economics are a no-brainer. Recycled cashmere and wool now costs approximately half of what the virgin material costs. Perhaps most remarkable of all though is the trend for landfill sites – almost the definition of a liability – to be seen as productive revenue generating assets, both through the harvesting of landfill gas to run electricity generators and in some cases as sources of 'urban mining' where valuable materials dumped in landfills decades ago are now being 'resurrected' as raw materials and given a second life.

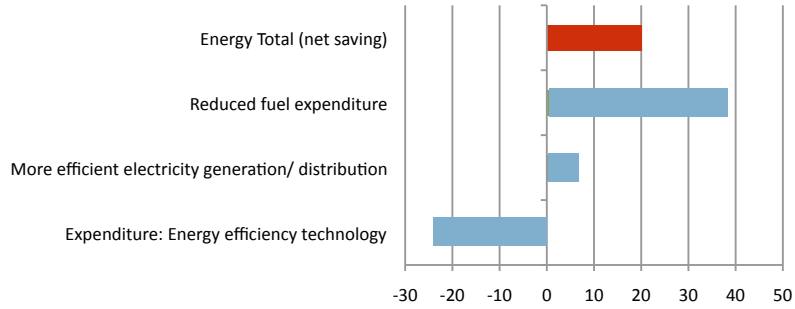
RUNNING FASTER THAN THE COMPETITION.

These examples clearly deliver value in an absolute sense to those businesses innovative enough to realise the opportunity, but turning liabilities into assets may simply involve outperforming your competitors. This issue is not unlike a scenario in which two hikers stumble upon a bear whilst out walking. As the bear turns to chase them, one stops to put on his running shoes. 'Why are you putting on your shoes? You can't outrun a bear!' yells his companion. 'I don't have to outrun the bear,' he responds, 'I just have to outrun you!' In the same way, faced with a new cost, success for businesses can mean simply lowering costs relative to competitors. This was the strategy pursued by one UK supermarket when confronted with the prospect of the then new landfill tax. Once they had concluded that their exposure was lower than their competitors, they became strong advocates in supporting the policy.

RESOURCE EFFICIENCY

This form of environmental alchemy is not confined to waste and waste management. As resource costs have risen, particularly energy, so companies have found that more effective management of these resources has yielded significant savings. We are collectively still profligate in our use of energy. HSBC have found that the European Union would see a net benefit of €20bn by 2020 through capital investments in energy efficiency technologies, yielding savings in reduced fuel expenditure and efficiency savings in electricity generation and distribution (see figure 2). The consultants McKinsey & Company estimate that at current market prices, 70% or resource productivity opportunities have an internal rate of return of more than 10%. By 2030, they claim, the annual market value (at today's prices) of these resources they save would be US$29 trillion.[4]

Figure 2: Net savings in EU of €20bn from energy efficiency (2011-2020)[5]



These statistics are borne out at a micro-level as well. The Empire State Building is America's favourite building, according to a poll conducted by the American Institute of Architects. But until recently, it was highly inefficient, leaking heat from its 6,500 windows. That is until the Empire State Building Company employed a consortium of partners, led by Johnson Controls, to carry out a retrofit project designed to cut the building's energy use by 38%. The project is ahead of plan and has already saved $2.4m in energy costs in the first year. Once all tenant spaces are upgraded, the building will save $4.4m a year and will cut carbon dioxide emissions by 105,000 metric tons over the next 15 years[6]. These figures are not in fact particularly remarkable. WEMS, a WHEB portfolio company offering wireless energy management systems for commercial buildings, delivers typical savings of 15-30% for example.[7] The UK-based fuel distributor MRH, which owns 350 petrol stations across the UK, has succeeded in cutting its energy costs by 90% through the replacement of lighting systems across its portfolio and saving £260,000 annually.[8]

LEAVING MONEY ON THE TABLE

So what has changed? Why are companies now considering environmental management as a source of value creation rather than merely a compliance-focused cost centre? Like the paradox of the £5 note that is left lying on the ground because there are too many £10 notes to be collected elsewhere, the difference is that in the past environmental liabilities have been too small to attract the attention of business managers. However, this has clearly changed – prices of environmental liabilities are going up, whether in the form of energy bills, charges for the removal and disposal of waste, or in the price of raw materials at the factory gate. Furthermore, it is also clear that over the coming years the economics are only going to get more compelling. Businesses are increasingly drawn to reap the value from taking a more innovative approach to the management of the problem. Investors too should be taking note.

1. Marks & Spencer, The Key Lessons from Plan A Business Case, 2012.
2. http://www.gmbeyondnow.com
3. BT, BT Energy Efficiency Case Study and perse.comm, BT 2012
4. McKinsey & Co., Resource Revolution: Meeting the World's Energy, Materials, Food and Water Needs, 2011
5. HSBC, Designing a Green Exit , 2012
6. http://www.esbsustainibility.com
7. http://www.wems.co.uk
8. EdieEnergy, Fuel Distributor to Reduce Energy Costs by 90% with LED, 12 August 2012

GREEN
VS GREY INFRASTRUCTURE

by Ben Goldsmith, Partner, WHEB Partners

Emerging economies need to build new infrastructure and mature markets need to rebuild crumbling roads, bridges, levees, waste management and water treatment plants.

Climate chaos, natural resource scarcity, demographic changes and macro economic burdens are challenging governments, especially in urban areas, to deal with massive infrastructure issues. Emerging economies need to build new infrastructure and mature markets need to rebuild crumbling roads, bridges, levees and waste management and water treatment plants. In the US for example, the American society of Civil Engineers estimate a US$2.2 trillion infrastructure repair bill, giving the quality of infrastructure a 'D' overall.[1]

In the past, government and private actors have automatically turned to traditional 'grey infrastructure' to solve these problems. Now, local, regional and federal governments, innovative non-governmental organizations, thoughtful engineering and construction firms, and private investors and entrepreneurs are forging new approaches that use hydrological and natural processes rather than concrete and steel. The US Environmental Protection Agency (EPA) has amassed extensive research that shows that "green" or "natural infrastructure" solutions are less expensive than grey infrastructure solutions, and have a wide array of co-benefits for local economies, the social fabric, and the broader environment.[2]

Cities are looking out for innovative partnerships to execute these ideas, and NGOs and the private sector are responding with powerful new ideas. For example, the City of Philadelphia in the US is attempting to catalyse the implementation of natural infrastructure by changing policies to allow a reduction of taxes for commercial property owners who use green infrastructure to reduce storm-water run off from their property. Interventions like green roofs (plants on roofs), blue roofs (roofs that collect water), stream side restoration, and permeable surface areas for parking lots, driveways etc. are far more cost effective on a per unit basis in reducing storm-water than building massive tunnels under cities and piping and filtering water during storms.

The Rockefeller Foundation has provided grant financing to non-profits NRDC and The Nature Conservancy to work with environmental asset manager EKO to develop private financing mechanisms for these efforts in Philadelphia. A study published by NRDC and EKO suggests that there is a $370 million private investment opportunity on commercial properties in Philadelphia alone.[3] Additional research has shown the need for several hundred billion dollars of storm-water management infrastructure – it appears possible that much of that could be directed to green solutions and could be privately financed if these efforts in Philadelphia are successful.

WATER INFRASTRUCTURE

There are natural infrastructure financing solutions being developed for pressing infrastructure problems such as using payments for watershed protection for cleaner water in places like New York City, Columbia and Ecuador. In the UK, the use of green infrastructure has

In these straitened times, building 'green' rather than 'grey' infrastructure may prove to be the cheaper and more sustainable approach.

also emerged most strongly in the water industry. South West Water, part of the Pennon Group, has established itself as a leader through its 'Upstream Thinking' programme. Much like the US initiatives, the objective is to use natural 'infrastructure', - in South West Water's case in the form of upland bogs and improved land management - to reduce the need for new storm water capacity, reservoirs and water treatment. The commercial benefit of the programme is to defer or even avoid capital investment. According to South West Water, an investment of over £6m from 2010-2015 will enable the company to avoid capital costs, associated interest charges, and operations and maintenance expenses that would be sixty times this figure up to the year 2030.[4]

These figures are pretty remarkable, but it is still early days in realising the potential of green infrastructure. In these straitened times, building 'green' rather than 'grey' infrastructure may prove to be the cheaper and more sustainable approach.

1. http://www.infrastructurereportcard.org
2. http://water.epa.gov/infrastructure/greeninfrastructure/gi_performance.cfm
3. Natural Resources Defence Council, Financing Stormwater Retrofits in Philadelphia and Beyond, February 2012
4. Perse Comm, South West Water

INFLUENCING POWER

WHEB'S CONTRIBUTION TO DRAFTING THE ENERGY BILL

by Megan Bingham-Walker, Principal, WHEB Partners

The UK Energy Bill has been a big feature of 2012, from its publication in May to the delivery of startlingly frank scrutiny from the House of Commons Energy and Climate Change Select Committee in July. The Committee wrote that 'the draft Bill and its associated documents are fundamentally flawed by the lack of consideration given to demand-side measures, which are potentially the cheapest methods of de-carbonising our electricity system'.[1] What did they mean, and how could such a gulf have arisen between the Government's proposals and the Select Committee's assessment?

The first draft of the Bill concentrated on creating enough generation capacity to meet escalating demand in a world where the sources of traditional energy are more expensive; low-carbon energy is intermittent; and capital is more risk averse. The Bill sought to address these factors by introducing a 'Capacity Mechanism' that would offer long-term contracts to energy producers – such as nuclear and gas producers – if they are able to guarantee the availability of energy for the electricity grid. This mechanism would encourage producers to build extra generating capacity, but, as the Select Committee pointed out, having sufficient capacity to guarantee availability will mean that some of this capacity is not used all the time. This represents a continuation of the status quo where energy is purchased according to standard usage patterns and supplied with generating capacity supplemented by inefficient upstream spinning reserves.

Rather than investing significant amounts of capital in excess supply capacity and spinning reserves, the Select Committee suggests in its report that more can be done to reduce demand and ensure that what demand there is, is better matched to supply. The key to tackling demand is to use a price mechanism to incentivise users to shift their consumption from times of high energy demand to times of lower demand. In such an environment, a 'nega-watt' – i.e. an undertaking not to use power at a certain time – becomes a bankable commodity for those able to aggregate them, such as District Network Operators (DNOs).

Several disparate policy areas affecting consumers directly are linked to this concept of demand-matching:

- Smart meters will provide detailed data on usage patterns.
- Half-hourly settlements will allow consumers to be billed according to the wholesale grid cost of energy used each half-hour.
- Grid flexibility tariffs will reward consumers for reducing usage at peak times.
- The half-hourly settlement market would allow electricity suppliers to start purchasing energy according to the actual usage patterns observed through smart metering, rather than standard usage patterns.
- When smart meters are combined with smart monitoring and controls (for heating, cooling, large electrical appliances and lighting), consumers will have additional tools to shift demand in response to price or capacity signals.

Other technologies and interventions are coming on-stream to improve the efficiency of the built environment and to store and re-release energy according to demand.

The creation of a dynamic, user-orientated markets, where electricity demand shifts in response to supply constraints, represents the full potential of a smart grid. WHEB Partners has been working with one of our portfolio companies PassivSystems to encourage the government to take the Committee's advice into consideration to reduce demand rather than relying on an expensive and inefficient over-supply in generation capacity. We keenly anticipate the second draft of the Bill which is due in the Autumn and which we hope will reflect these points.

When smart meters are combined with smart monitoring and controls, consumers will have additional tools to shift demand in response to price or capacity signals.

1. House of Commons, Energy and Climate Change Committee, Draft Energy Bill; Pre-legislative Scrutiny, 17 July 2012

ABOUT

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