

SUBMISSION BY SUSTAINABILITY LTD/INC TO THE QUALITY OF LIFE COMMISSION ON CLIMATE CHANGE.

SustainAbility is a hybrid organisation: part think tank and part consultancy. Established in 1987, we advise clients on the risks and opportunities associated with corporate responsibility and sustainable development. Working at the interface between market forces and societal expectations, we seek solutions to social and environmental challenges that deliver long term value. We campaign inside Boardrooms to promote more sustainable business models.

The Quality of Life Commission review is timely. It is clear - from both a policy and a business perspective - that the issue of Climate Change has passed a tipping point. Having consulted on the issue for more than 10 years, we have observed a major upsurge in business engagement on the implications of, and strategic responses to, a carbon constrained economy.

The urgency of the issue, however, allied to the scale of long-term investment required to address climate change, demands an integrated national strategy¹ which optimises the roles and responsibilities of government, business and civil society. We focus in this paper on the respective roles of business and government but acknowledge the vital roles NGOs and academia also have to play in informing, shaping and supporting solutions.

This paper was written following a meeting with the Quality of Life Commission in late 2006. It has been developed against the following headings:

- 1. Why the UK and its businesses should act unilaterally to drive for leadership in climate policy and practice.**
- 2. The case for a Carbon Treasury and an economically powerful independent Decarbonisation Committee**
- 3. How climate presents corporations (and, through them, the economy) with clear risks but equally huge opportunities.**
- 4. The complementary roles of regulation and market efficiency.**
- 5. 'Climate positive' has genius, power and magic in it.**

* * * * *

- 1. Why the UK and its businesses should act unilaterally to drive for leadership in climate policy and practice.**

As a starting reference for this paper, we propose that the UK should commit to becoming the first 'climate positive'² country by 2050. This would require scaling up of the 60-80% reductions currently under discussion to a visionary (rather than a precautionary) target of 100%+ - thus breaking into an era where the UK could effectively begin *reducing* the level of GHGs in the atmosphere³. Furthermore, we believe that climate mitigation and adaptation could offer the potential for competitive advantage at both the national and the company level. If the UK has the vision and the will to move unilaterally, it could pay huge dividends as the global imperative for de-carbonising creates some of the biggest markets in corporate history. Acknowledging that there will be winners and losers in the climate race, we want to see the UK and its businesses at the

¹ We fully recognise the need for an equally integrated international strategic approach but have limited this paper to the national priorities. We believe that leadership by the UK on this issue can not only offer competitive advantage in world markets but also add moral authority in bringing the international community to respond proactively and in concert.

² 'Climate' rather than 'carbon' because the GHGs include non-carbon gases such as Nitrous Oxide (5.2% of all GHGs)

³ In line with Shell's proposal for a series of prizes to deliver innovative climate solutions modelled on the famous Longitude Prize established by Parliament in 1714; with Branson's thinking in launching the \$25m (£12.5m) Earth Challenge Prize for a method that will remove at least one billion tonnes of carbon per year from the atmosphere; and with the X Prize Foundation <http://auto.xprize.org/xprize/>

forefront of the policies, technologies and services needed to meet the global climate challenge and thus secure a winning place in the race.

There are a range of attractions for taking a visionary 'climate positive' approach:

- It offers an exciting, positive goal in contrast to the negative focus of 'cutting by 60/80/90%'
- Given the timescale, it is not so huge a leap (the QoLC is already on record as promoting a step from 60% to 80%): it would probably push the GDP impact up only marginally
- 2°C and scientific assessment of risks and related concentrations of CO₂e both carry a spurious sense of accuracy: it looks unlikely that the science will suggest a need for less rather than more ambitious GHG cuts in future
- Prudent precaution in the face of uncertainty would argue for the higher 100% as opposed to the 60-80% range under discussion
- The 43 years to 2050 offer unforeseeable transformational opportunities (looking back 43 years, we had no microprocessors, mobile phones, internet, email or hydrogen fuel cells)
- It could, and should, unleash extraordinary creativity and innovation as we have seen in wartime: it plays to UK historical strengths and could be our 'man on the moon' vision
- In the global market, first movers on climate are very likely to see significant net economic gain with a powerful competitive advantage
- Other countries are already moving: Sweden to eliminate fossil dependence by 2020 and Iceland to mainly hydrogen power by 2050.
- It would deliver massive secondary benefits in terms of energy security: recent events argue for fundamental shifts in our energy sourcing and management strategies.

2. The case for a Carbon Treasury and an economically powerful independent Decarbonisation Committee.

To support this visionary approach, SustainAbility recommends a radical reorganisation of responsibility for the UK's management of climate change. In particular we propose the formation of a Carbon Treasury with a budget and powers to achieve aggressive Greenhouse Gas reduction targets set by an independent Decarbonisation Committee⁴.

We argue for a significantly enhanced role for the Decarbonisation Committee compared with the Carbon Committee proposed in the forthcoming Climate Change Bill. In addition to setting annual GHG emission targets, it would also set forward requirements for the percentage of GDP to be allocated by the Chancellor of the Exchequer to achieving the necessary GHG reductions⁵. This budget would be under the primary control of the Carbon Treasury which, in addition to deploying a range of regulatory and market instruments for reducing emissions, would build a 'carbon reserve' to iron out the effect of economic cycles⁶.

Given that climate is now acknowledged as one of the most critical challenges of the twenty first century, SustainAbility forecasts that climate related issues will cut across every department of government thus warranting a dedicated ministry to pursue a de-carbonisation strategy. The key point is that this department must carry as much influence and accountability for addressing climate change as the Treasury currently does for the economic well-being of the UK.

We anticipate carbon becoming a major currency of the twenty first century. It is inevitable that all parts of society are going to have to integrate the cost of GHG emissions into every decision and purchase they make. Decarbonisation will become one of the critical economic drivers of the coming decades. It demands structural change in the way we address this challenge.

⁴ The carbon equivalent of the MPC – a concept conceived, adopted and adapted by others.

⁵ Comparable with the 0.7% GDP commitment to development.

⁶ This is similar in intent to the range of inflation rates either side of a target which the MPC has the flexibility to use to enable the overall strategy to cope with economic shocks.

3. Climate presents corporations (and, through them, the economy) with clear risks but equally huge opportunities

The importance of the business sector in addressing the climate challenge needs to be assessed against a backdrop of a dramatic shift in power from the public to the private sector; accelerating globalisation concentrated in relatively few mega MNCs; and a growing preference for market rather than regulated solutions to social and environmental problems. This reinforces the case we have developed elsewhere that corporations are accountable to society beyond legal compliance and that, while they have been central to economic development which has caused climate change, they must equally be at the heart of developing and executing solutions. It is notable that the corporate sector accounts directly for over 50% of global emissions and indirectly for significantly more (through for example the energy efficiency/inefficiency of its consumer products). From all perspectives, the corporate sector must be actively engaged in contributing to a rapid de-carbonisation of our economy.

Much, if not most of corporate investment in the issue has been in addressing the range of risks associated with a carbon-constrained future. These relate primarily to disruptive market shifts to low(er) carbon products and processes driven by regulation, market instruments and consumer preference; potential liability for failure to act responsibly in lessening climate impacts; growing activism for climate responsibility by NGOs (and, more recently, shareholders, banks and insurers); and reputational and operational risk from a misalignment with stakeholders' expectations of corporate climate responsibility. Early evidence of more integrated approaches to Corporate Governance, Corporate Risk and Corporate Reputation Management are encouraging but often obscure the obverse of climate risk – namely the huge market opportunities which open up to those companies which recognise that society will directly and indirectly reward those companies which deliver positive solutions to a global crisis.

Recent years have seen a remarkable change in attitudes of business leaders to climate change. The dramatic shifts by GE, Wal-Mart and Virgin Atlantic, to name but a few, are but the tip of the iceberg, reflecting not only concern for the reputational benefits of being seen to be climate responsible, but also an understanding that climate security is a prerequisite of business security and that the moral imperative is now strongly reinforced by a compelling business case. Our work with Swiss Re on liability and climate change highlighted the reinsurance industry's concern that certain climate risks could become uninsurable in the medium term: they are now adding new screens to manage future liabilities. Furthermore, we have witnessed the scale and immediacy of these businesses' decision to reduce their climate impacts through their extensive supply chains. Even low-carbon businesses are being sensitised to the issue through the web of climate connections in their value chain (policy, suppliers, investors, emissions trading, employee concerns, trade associations etc). It would not be an overstatement to say that the scale and speed of corporate engagement is unprecedented.

Even the investment community is now waking up to the risks and opportunities presented by climate change. This can be seen, for example, in the Carbon Disclosure Project backed by \$41 trillion of funds⁷ and the plan for detailed climate criteria for inclusion in the FTSE4Good Index⁸. The investment community has been slow to appreciate the impacts climate change will have on shareholder value (both negative and positive) but is, we judge, poised to shift into active mode. On the opportunity side there are already significant streams of VC funding for climate-related technologies and evidence of the emergence of a new breed of 'carbon entrepreneurs'. It is probable that these enterprises will bring disruptive new technologies to the market and act as yet another spur to mainstream business.

⁷ <http://www.cdproject.net/index.asp>

⁸ http://www.ftse.com/Indices/FTSE4Good_Index_Series/Downloads/F4G_Climate_Change.pdf

Increasing attention is also being given to the strategic role of corporate responsibility as a competitive differentiator (see Michael Porter and Mark Kramer's piece in the December Harvard Business Review⁹ on the need to pull CSR in from the periphery and integrating it into core business strategies). McKinsey have also raised the profile of CR and climate as strategic issues and levers for business leaders¹⁰. Our sense is that the competitive dimension of the Corporate Responsibility agenda generally and of climate change in particular is only just playing out in the market. As predicted in our analysis of competitive levers over the last half century, we are witnessing a shift away from 'hard' competitive differentiators such as price and product quality towards 'softer' factors such as ethical quality and environmental responsibility. Climate as a source of competitive advantage (or disadvantage) is rapidly being spotted by progressive businesses and investors alike.

In support of the market and competitive opportunities available to business, Shell's recent Springboard research estimated that climate related business opportunities for SMEs over the next five years will exceed \$1 trillion¹¹. The Stern report suggests proactive mitigation investments could build an annual economic opportunity of hundreds of billions of dollars. Carbon trading alone has become (in spite of short term weakness attributable to poor initial allocations in the EU) a booming global market worth over US \$10 billion in 2005, up ten times on 2004. Entrepreneurial investment is already in evidence with \$2.9 billion invested by North American cleantech funds in 2006 (up 140% in two years), while renewable energy markets are forecast to grow from \$55 billion in 2006 to \$226 billion by 2016¹².

The risks and opportunities in relation to climate are huge and extend throughout the value chain. SMEs are already under pressure to innovate to reduce the carbon footprints of the larger companies at the top of the supply chain. Larger companies are placing each other under pressure (as mutual suppliers and customers) to reduce their respective carbon footprints. The result is the rapid emergence of a global business web of de-carbonisation pressures which undermine any continuing hope of holding a 'business as usual' course in terms of their climate impacts.

4. The complementary roles of regulation and market efficiency.

Our own work is rooted in the belief that social and environmental issues cannot be resolved through business alone but equally that they certainly cannot be resolved without the active contribution of business and markets. In the case of climate, however, clarifying and managing the respective roles and responsibilities of business and government is critically important given the urgency and scale of the challenge.

As a starting point, it is our view that the most rapid responses to climate will come from the corporate sector and that regulation will lag real and substantive shifts by business and markets. One reason is that globalisation has resulted in extended value chains where a single global company which decides to reduce its carbon footprint can rapidly and effectively squeeze carbon from its full supply chain. The web of influence and impact this can have is remarkable. Wal-Mart, for example, with turnover approaching \$300 billion (equivalent to the GDP of Belgium, Switzerland or Sweden) has committed to use its commercial power and influence positively to reduce climate emissions. Corporate climate neutrality leaders such as Swiss Re, HSBC, Aviva, BskyB and Fortis are all driving a reduction of GHG emissions through their entire value chain. The repercussions for their suppliers and customers – from other multinationals through to SMEs - are potentially seismic. They also have a multiplier effect as supply chains overlap creating reciprocal pressures for businesses to help in reducing each others' carbon footprints.

⁹ Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility. HBR December 2006

¹⁰ The Economist May 28th 2005

¹¹ www.shellspringboard.org/downloads/news/Q65_Springboard_Doc_V4.pdf

¹² www.cleantech.com/reports/Trends2007.pdf

While the recent EU commitment to reducing emissions by 20% by 2020 is to be welcomed, many businesses have already made public commitments to even more stringent reductions. For example, 3M commit to reduce GHG emissions by 30% in the five years to 2007; Weyerhaeuser by 40% between 2000 and 2020; and Toyota to reduce CO₂ emissions by 20% per sales unit from 2001 to 2010. Yet these voluntary, market led and market driven responses, though welcome, are in themselves inadequate to the challenge – as recognised by forward thinking business leaders. Market transformation will require new regulatory frameworks; a clear sense of the long term value which carbon is likely to achieve; and market mechanisms which will change both corporate and consumer behaviours. Imagine what the voluntary programmes referenced above could achieve with the appropriate reinforcing policies and incentives!

Given the traditional resistance by the corporate sector to regulation, it is paradoxical that progressive companies are not only moving faster than regulation but are also calling for clearer long-term policies in the field of climate. On both sides of the Atlantic they are putting increasing pressure on governments to set clear long term, credible targets and mechanisms which will progressively establish a firm price for GHG emissions and so enable investments in de-carbonising markets¹³. We strongly support these calls - and offer our proposals as a route to providing the framework within which business can actively play its part in meeting the climate challenge. We encourage, therefore, both business and government to set courageous, visionary and unilateral policies and goals.

In terms of government's role and contribution to effecting positive climate responses, we propose that the priorities should be to:

- Establish clear, time-defined goals which have binding cross party commitment confirming 2°C as the upper limit for the increase in global mean average temperature
- Set the CO₂e target which it judges most likely to secure that outcome¹⁴
- Create significant incentives for businesses to reduce their *full lifecycle* carbon footprints
- Recognise the power of government spending and align its procurement policies directly with the committed reduction goals
- Employ mechanisms which provide clear and predictable emissions targets (on an annual basis) but which offer sufficient flexibility to accommodate economic downturns
- Focus investment and regulation on demand management – heavily prioritising energy conservation and efficiency
- Ensure that a floor price for carbon is guaranteed for a transitional (say 10 year) period.

On a more general note, and taking into account the wider environmental, social and economic impacts of shifts in energy policy, we suggest the following:

1. Full lifecycle assessments should be made in determining the net carbon emissions of key components in any future energy policy (nuclear, for example, does not score very well on this count while many biofuels emit more carbon in their full lifecycle than the amount they save).
2. Regulations and incentives should drive the active deployment of existing established technologies to reduce energy consumption. Dramatic savings could be achieved in relatively short timescales if we applied existing best practice of the most progressive countries (eg current Scandinavian building standards and Japanese energy efficiency).

¹³ For example, the UK Corporate Leaders Group on Climate Change (www.cpi.cam.ac.uk/bep/clgcc); the US Climate Action Partnership (www.us-cap.org) and the Global Roundtable on Climate Change (<http://www.earthinstitute.columbia.edu/grocc>)

¹⁴ We strongly support the precautionary principle of the QoLC's own paper 'Don't Give Up On 2° C' as the minimum goal, but, as above, make a competitive rather than a precautionary case for even more aggressive targets.

3. Higher levels of intervention by regulators are likely to be required than free market economist and politicians will feel comfortable with (the phasing out of incandescent light bulbs by Australia and the EU are good examples); all options should be explored for their 'rate of carbon return'.
4. Renewable fuels must be sustainable. We support the Institute of Science in Society's definition of sustainable as being 'safe for health and biodiversity, affordable, ethical, energy efficient, as near as possible 'zero emission' and 'zero waste' and does not compromise the world's food security'.
5. Specific policy measures should be introduced to support 'carbon entrepreneurs' - mainly small and medium enterprises developing radical low/no carbon technologies (without being concerned with sunk capital in the way that the major emitters will be).

5. 'Climate positive' has genius, power and magic in it.

Climate Change is an unprecedented challenge demanding unprecedented solutions. With the right incentives and policy frameworks, extraordinary advances can be made harnessing human creativity to meet this – the biggest challenge of the twenty first century. Climate change has been described as the greatest market failure in mankind's history. We believe - given the political vision and will - that it is still possible for addressing climate change to become one of mankind's greatest market successes.

As in all aspects of business and political life, the courage to break the status quo is not only a pre-requisite of inspirational leadership but can also empower unimagined creativity (compare Kennedy's vision for putting a man on the moon – his vision was solutions rather than problem based). This is precisely what we need in the climate debate to shift the UK from debate to action. Everyone is holding back for others to move. We need political will and courage unseen since Margaret Thatcher's premiership (this is absolutely not an endorsement of the policies she pursued, but rather recognises the political vision and courage which she demonstrated). We offer the following in the hope of stimulating the new level of vision and courage we urgently need:

*"Until the UK is committed to become **climate positive**, there is hesitancy, the chance to draw back, always ineffectiveness. Concerning all acts of initiative and creation, there is one elementary truth the ignorance of which kills countless ideas and splendid plans: that the moment one definitely commits oneself, then providence moves too.*

*All sorts of things occur to help one that would never otherwise have occurred. A whole stream of events issues from the decision to go **climate positive**, raising in one's favour all manner of unforeseen incidents, meetings and material assistance which no politician could have dreamed would have come his way.*

'Climate positive' has genius, power and magic in it. Begin it now."

[With apologies to Goethe et al.]