

## TRENDS & IDEAS: CARBONDIEM'S CEO ON CO2 EMISSIONS METERS

Current greenhouse gas emissions are economically, socially, and environmentally unsustainable according to the International Energy Administration (IEA). The U.S. government estimates that emissions will increase by 50% by 2030 and even with energy and fuel efficiency improvements they will still increase by 35% over the same period. To remain within sustainable emissions margins, the IEA argues that carbon intensity would have to fall at twice the rate of 1990-2008 in 2008-2020 and four times faster in 2020-2015. Low-carbon energy technologies and management together with carbon management practices will play an increasingly relevant role for companies in industries ranging from transportation to utilities and all types of manufacturing.

The European Emissions Trading Scheme will wind up its Phase 2 this year and will enter Phase 3 in 2013, which will run until 2020. In the final phase, all emission certificates will be traded in auction, pushing up CO2 costs for many companies which currently are allocated some of their allowances for free. In addition, the EU's Industrial Emissions Directive will introduce more stringent standards in relation to the emission of nitrogen oxides, sulphur dioxide and dust from 2016, effectively snuffing out most coal-fired generation. Nomura writes that CO2 is likely to trade below the theoretical switching price throughout Phase 3 and it has cut its CO2 price forecasts by circa 40% over 2012-14. It has also reduced its power price forecasts by 5%-7%.

London-based Carbon Hero is set to harness emerging corporate sustainability trends in 2012, by producing CarbonDiem a carbon calculator for travel. The mobile phone app and web service

automatically detects the user's mode of transport and calculates the journey's carbon footprint. A web-based software suite accompanies the app and aggregates users' emissions data, allowing corporate sustainability managers to analyse and report the emissions for their organisation with ease.

According to Clive Roberts, senior equity analyst at Capital IQ Research, EU emission allowances (EUA) are currently trading on the forward market at around EUR 6.72 per tonne of CO2 for December 2012, EUR 7.21 for 2013, EUR 7.75 for 2014, less than half the levels paid in recent years. Roberts believes this reflects weaker-than-expected demand due to mild European weather patterns in 2011, ongoing weak economic conditions and energy efficiency measures, combined with the ramp-up of renewable generation capacity and expansion of alternative CO2 reduction scheme credits (e.g. Certified Emission Reductions) in the developing countries. Roberts also notes that RWE's report for the year to September 2011 stated that: 'The publication of a draft EU directive to improve energy efficiency also put prices under pressure as the implementation of the directive would further dampen CO2 emissions. In addition, Poland blocked the EU's plans to lift the emission reduction target for 2020 from 20 % to 25 % compared to 1990. Furthermore, it became known that, starting at the end of the year, the European Investment Bank intends to auction off a total of 300 million certificates for the third trading period, which stem from the new entrant reserve.'

In addition, Berenberg points out that the EU announced a new Energy Efficiency Directive on

June 22, 2011, which proposed a legal obligation on all member states for energy distributors and retailers to lower sales volumes by 1.5% p.a. The EU is targeting a 20% reduction in energy consumption by 2020 (versus 2007). In current macroeconomic conditions, when government's worldwide are engaged in fiscal consolidation and spending cuts, the private sector could play an important role in reducing the carbon footprint globally, Ankit Jain of S&P Capital IQ Equity Research observes that: 'The innovation to track your carbon footprint while travelling using a mobile phone with little effort is a welcome gift for the environmentalists as well as firms committing to reducing their environmental impact by collecting travel data on their employees. However, two keys questions remain to be analysed for such a device: its accuracy and the individual's privacy concerns.'

Andreas 'Zac' Zachariah, CEO and Founder of Carbon Hero Ltd., talks to S&P Capital IQ MarketScope about his business model.

EMS: What is your business model and how do you make money?

Clients either pay an annual subscription to use CarbonDiem as an ongoing service, or make a one-off payment to deploy it as a finite employee-awareness campaign. In both cases, the cost depends on the size of the company or site, and the degree to which the client wants to make the app bespoke by incorporating their own branding. The value proposition to the enterprise is that we spare the employees and consequently the organisation the time they would otherwise spend managing manual entry methods. Even consultants brought in to measure and collate the data will almost always interview employees to source the data, thereby also taking them away from their day-to-day duties. Our own findings mean that we cost our solution providing a return

on investment measured in 3-6 months. This excludes the intangible value of heightened employee association to their employer from the increased social and environmental components.

EMS: What do you think governments can do to infuse awareness about carbon footprint during travel?

A recent EU study identified transport as the only sector not to have shown a decrease in greenhouse gas emissions over the past 20 years. More worryingly it predicted that transport will account for more than half of all the region's emissions within the next 20 years. What the study did find was the cause of rising transport emissions. A lack of policy intervention. So clearly governments have a key role to play in curbing the emissions of both business and the public. The UK is among the leaders in tackling climate change, but here the government has been criticised in the business community for its complex and varied initiatives such as the CRC Energy Efficiency Scheme. We believe that it stands to have the greatest impact if it collaborates with businesses to build a framework for emissions reductions. The business community has already taken significant steps towards tackling transport emissions and many industry leaders were fully engaged in the drafting of the October 2011 launch of the greenhouse gas Protocol for 'Scope 3' emissions. This sets out accounting standards for reporting emissions that occur outside the factory gates, including the commuting and business travel that CarbonDiem measures. So the government would do well to nurture the adoption of the GHG Protocol. Perhaps the easiest and single most powerful action the government could take would be to require organisations tendering for government business through the procurement channel to measure and collect these travel emissions.

EMS: How much has the demand increased for this service over the years?

As corporate sustainability initiatives have matured from their early marketing-driven incarnations, they are now being integrated into the corporate agenda across departments, as seen in Marks & Spencer's Plan-A and Unilever's Sustainable Living Plan. Of course some companies like InterfaceFLOR have long had this built into their DNA by their business leaders (CEO Ray Anderson RIP). This shift is driven by pressure from stakeholders, increasingly sensitive to the business risks and opportunities presented by understanding the climate-change threat. Representing the demands of shareholders when it comes to carbon is the Carbon Disclosure Project (CDP), which encourages companies to report their carbon emissions just as they would report their finances. Within this initiative alone, the number of companies publishing their carbon emissions has grown to over 3,500 in some 60 countries. We also expect a new phase growth of carbon awareness on the back of the new focus on Scope 3 emissions, which include the emissions in the supply chain. This encourages those companies that are already looking at their emissions to put pressure on their suppliers to do the same. Wal-Mart and Microsoft are two examples of companies that have initiatives in place obliging suppliers or vendors to act on their environmental impact.

EMS: Are you looking more at corporate clients or households?

CarbonDiem is a corporate employee-awareness service that has been designed to connect the willingness of individuals to be environmentally conscientious with the need of companies to manage emissions. When it comes to travel, few of us have a good understanding of the impact of our transport choices, making it difficult to travel

in a more environmentally-friendly way. CarbonDiem helps companies solve this problem for their employees. Our corporate clients distribute the CarbonDiem Smartphone app to their employees, who will then be able to see their own travel emissions, compare them with their colleagues and take action to improve their travel. Building awareness of a company's Corporate Social Responsibility (CSR) practices and strategies is an important part of increasing employees' pride and loyalty. A CarbonDiem campaign allows our clients to benefit from demonstrating their environmental values to their employees, and at the same time gives CSR officers the tools to aggregate and monitor the travel emissions of their workforce.

EMS Have you sealed any deal with major companies?

During the latter half of 2011, we conducted a round of closed pilot schemes with 6 blue-chip companies including an oil major, a world-renowned broadcaster, and a global soft-drink company. As a consequence we have already been invited to tender for two contracts which we look to convert in early 2012.

EMS How are the consumers looking at this product? In the smart meter space, customer appeal proved to be more important than infrastructure...

We are sensitive to the differences between the needs of the employee and the requirements of the employer, and have always aimed to create a service that meets both sets of requirements. Above all, though, the common requirements are ease of use and personalisation. However by taking extra special care to protect the privacy of the individual we can address the demands for tighter security which are often a prerequisite for government and enterprise contracts. Previous

solutions to help measure travel emissions have been painfully manual and based on generalisations - often suffering from laborious spreadsheet data entry or the use of a model based on an 'average' person. Feedback has shown us that employees feel most engaged with sustainability initiatives that are personal to them and dynamic, as it keeps them interested by showing them the difference they can make. Meanwhile, the environmental space presents companies with unique challenges as it attracts an unusual level of cynicism. Successful initiatives must therefore be transparent and representative of the specific company - generic one-size-fits all

approaches can be quickly dismissed as 'greenwash'.

EMS: However, is your product's growth below or above the high double-digit rate for smart phones?

According to a June 2011 Pike Research study CAGRs of the carbon software measurement industry have been comparable to Smartphone growth at over 35%. Despite only launching our CarbonDiem UK service at the 2012 Mobile World Congress at the end of February in Barcelona, we aim to have tens of thousands of employees signed up by the end of the year.

Giada Vercelli - S&P MarketScope, [ems@sandp.com](mailto:ems@sandp.com)

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