



 **carbon  
control**  
SOFTWARE



EXECUTIVE WHITEPAPER

[www.carboncontrolsoftware.com](http://www.carboncontrolsoftware.com)



## Executive Summary

Computer systems and Information Technology in general, use a significant amount of energy on a daily basis and subsequently contribute to an organisation's overall carbon footprint.

Like walking on a "soft sandy beach" everyone leaves a footprint, and the aim of **Carbon Control Software (CCS)** is to reduce the amount of carbon emissions produced by an organisation through the efficient utilisation of energy used to operate computer systems.

With the facility to both measure the amount of energy used and enforce automated energy management policies, CCS can in effect reduce the energy usage of an organisation's IT infrastructure, offering:

- Significant decrease in energy costs
- Reduction in organisation's overall carbon footprint

## Current State of The Environment

During the modern era, the naturally rising carbon dioxide levels are implicated as the primary cause of global warming since 1950. According to the Intergovernmental Panel on Climate Change (IPCC), 2007, the atmospheric concentration of CO<sub>2</sub> in 2005 was 379ppm<sup>3</sup> compared to the pre-industrial levels of 280ppm<sup>3</sup>. Thermodynamics and Le Chatelier's principle explain the characteristics of the dynamic equilibrium of a gas in solution such as the vast amount of CO<sub>2</sub> held in solution in the world's oceans moving into and returning from the atmosphere.

Climate change is already beginning to transform life on Earth. Around the globe, seasons are shifting, temperatures are climbing and sea levels are rising. If we don't act now, climate change will permanently alter the lands and waters we all depend upon for survival.

Some of the most dangerous consequences of climate change are listed below:

- Higher temperatures
- Changing landscapes
- Wildlife at risk
- Rising seas
- Increased risk of drought, fire and floods
- Stronger storms and increased storm damage
- More heat related illnesses and disease
- Economic losses

Which one will have the most impact on your life, or on the places you care about?



## What is a Carbon Footprint?

A **carbon footprint** is the total amount of **CO<sub>2</sub>** and other greenhouse gases emitted over the full life cycle of a product or service. There are a number of more specific definitions available, and a comprehensive review of definitions can be found in ISA-UK research report 07-01.



A carbon footprint is usually expressed as grams of CO<sub>2</sub> equivalents, which accounts for the different global warming effects of different greenhouse gases.

## Why should we pay attention to our energy usage and carbon footprint?

Ever more companies see climate change as a growing threat to their commercial interests, according to a study carried out on behalf of 315 global investors. Investors want firms to quantify and disclose the likely costs and benefits derived from climate change.

"Increasingly, investors view good carbon management as a sign of good corporate management."

Paul Dickinson  
Chief Executive, Carbon Disclosure Project

## What is the impact of information technology on the global environment?

Ever thought of ways to make your computing more environmentally friendly?


Since computers, monitors, printers and other miscellaneous peripherals use electricity, you can do so by reducing the amount of energy they consume.

New research shows that computers generate an estimated 35 million tons of the gas each year - the equivalent of one million typical flights to and from the UK. And Gartner, the international information technology research company, estimates that globally the IT industry accounts for around 2 per cent of carbon dioxide emissions - much the same as aviation.

An additional fact is that companies stand to save a substantial amount of money through improvements in education of end-users with regards to energy use and computer best practice.

Carbon Control Software offers companies a simple solution which allows them to both reduce their overall energy consumption whilst still maintaining maximum productivity levels.





## How can Carbon Control Software can provide you with information about your IT energy usage?


Carbon Control Software resides as a Windows-based service on company computer systems, comprised of both desktops and laptops, providing real-time accurate measurements of computer activity. The measurements are then processed further and expressed in terms of energy usage by a particular computer system over a given period of time.

Additionally Carbon Control Software has the ability to measure offline or remote computer activity by storing measurement data in temporary storage space on the local machine. Upon connecting the system to the network, the permanent storage database will be updated with the relevant offline activity measurements.

Carbon Control Software offers system administrators a variety of reports, statistics and graphs of energy usage information on corporate networks, allowing for the calculation of the overall energy consumption of the company's IT infrastructure and subsequent estimation of carbon emissions.

Managers, directors and supervisors are provided with customised reports containing information relating to energy usage for:

- Individual Computer Systems
- Users
- Departments
- Offices
- Company



## How can Carbon Control Software optimise your energy usage and reduce your carbon footprint?

As well as providing companies with valuable information on energy usage and carbon emissions, CCS offers system administrators the facility to enforce computer usage policies on end-users within the company to help optimise their energy usage and ultimately reduce their overall carbon footprint.

System administrators are able to define both global enterprise-wide policies and local end-user policies, which will govern the usage of computer systems across the organisation.

This type of enforcement can vary from a simple warning message, informing users of potential negligence, to the application of an automated shutdown or hibernation procedure on the offending system.

Through the employment of the automated CCS policies described above, companies are now able to conform to existing standards and legislation without having to invest in expensive system usage surveys and other manual-based procedures.



## Further Information

For further information with regards to the Carbon Control Software or to arrange a full software presentation for your organisation please feel free to contact:

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