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BUILD UPGRADE POPULATE MANAGE DESIGN

Comtec – Sustainability & Climate Change

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Climate change is now a fact of life and is playing a growing role in business competition. Greenhouse gas emissions will be increasingly scrutinized, regulated, and priced. While individual managers can disagree about how immediate and significant the impact of climate change will be, companies need to take action now.

Companies that persist in treating climate change solely as a corporate social responsibility issue, rather than a business problem, will risk the greatest consequences. Of course, a company's climate policies will be affected by stakeholder expectations and standards for social responsibility. But the effects of climate on companies' operations are now so tangible and certain that the issue is best addressed with the tools of the strategist, not the philanthropist.

From Effectiveness to Strategy

There is no one-size-fits-all approach to climate change. Each company's approach will depend on its particular business and should mesh with its overall strategy. For every company, the approach must include initiatives to mitigate climate-related costs and risks in its value chain. Business leaders need to start treating carbon emissions as costly, because they are or soon will be, and companies need to assess and reduce their vulnerability to climate-related environmental and economic shocks. Every firm needs to get those basics right, as a matter of operational effectiveness.[1]

A firm that has more employees than it needs in its shipping department is operationally ineffective; its managers are wasting resources and creating a drag on performance. In the same way, a firm that produces excess emissions in its shipping operations is also operationally ineffective—it is wasting resources and incurring unnecessary costs that are certain to rise. Implementing best practices in managing climate-related costs is the minimum required to remain competitive.

In addition to understanding its emissions costs, every firm needs to evaluate its vulnerability to climate-related effects such as regional shifts in the availability of energy and water, the reliability of infrastructures and supply chains, and the prevalence of infectious diseases. The firm's leaders should systematically assess these risks and then decide which to reduce through redesigning operations, which to transfer to others through insurance or hedging contracts, and which to bear.

For some, but not all, companies, the approach to climate change can go beyond operational effectiveness and become strategic. Some firms, in the process of addressing climate change, will find opportunities to enhance or extend their competitive positioning by creating products (such as hybrid cars) that exploit climate-induced demand, by leading the restructuring of their industries to address climate issues more effectively, or by innovating in activities affected by climate change to produce a genuine competitive advantage. For example, an operational response to climate change in outbound logistics or after-sales service might involve more-efficient engines on delivery and service vehicles, or modified schedules to reduce traffic delays. By contrast, strategic approaches could involve reconfiguring the activity entirely: In outbound logistics, firms might replace physical

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books or manuals with electronic versions, and in after-sales service, they could supplant physical visits by service technicians with remote diagnostics and treatment programs.

Inside Out and Outside In

To set a firm's approach to climate change and assess the strategic opportunity, business leaders need to look "inside out" to understand the impact of the firm's activities on the climate and "outside in" at how changing climate (in both its physical and its regulatory manifestations) may affect the business environment in which the firm competes.[2]

To understand the inside-out impact, managers need to study the firm's value chain. Any value-chain activity—inbound logistics, operations, outbound logistics, marketing, sales, after-sales service—can generate emissions. The simple ratio of profits to total emissions in the value chain can be a very telling measure of potential climate impact. If new regulations put a price of, say, $10 a ton on emissions, would that put a significant dent in the profits or even swallow them altogether? "Carbon exposure" rises with the impact of carbon costs on profits. Like other risks, carbon exposure carries opportunities as well as challenges: Forestry companies, for example, may find that removing carbon dioxide from the air by planting trees may be as profitable as cutting them down and producing paper or plywood.

The emissions impact of activities in the value chain can be direct or indirect. Emissions can be generated by an activity under the firm's direct control or induced by the firm in the activities of suppliers, channels, and customers. A company needs to understand the emissions it causes its business partners to produce, as well as those it generates itself: Both types are important targets for reduction.

These changing inside-out impacts have potentially revolutionary implications. For example, modern supply chains, with their transportation-intensive, just-in-time inventory management systems, may no longer be optimal in a world with more costly emissions. Similarly, e-commerce, with its proliferation of small shipments, may face real limits. And in some cases offshoring, which drives up emissions by lengthening transportation hauls, may be supplanted by lower-emissions onshoring to nearby clusters of suppliers.

High carbon exposure, as revealed by an inside-out analysis, does not by itself mean that climate is strategic for a firm. Once managers understand their firm's overall carbon exposure and the emissions impact of specific activities in the value chain, they can devise an action plan to address them. Emissions-intensive activities that add little value are candidates for elimination or outsourcing to more-efficient firms. Those that are important to value may become strategic if a company can reduce its exposure relative to competitors through improved performance.

Inside-out analysis helps shed light on the logic behind Wal-Mart's approach to climate. Wal-Mart's activities are logistics- and transportation-intensive, and the firm is actively seeking to reduce the resultant emissions. At first blush this approach looks purely operational: The firm is reducing energy use to mitigate the potential harmful effects of emissions on costs in its value chain. Wal-Mart's emissions-reduction programs will be strategic, however, if it can use its scale, scope, ability to invest heavily in technology, and reconfiguration of its value chain to reduce emissions in a way that is difficult for its smaller rivals to replicate. Wal-Mart seems to be making a strategic bet that it can reduce its carbon exposure more than competitors can and keep it lower.

In tandem with inside-out analysis, an outside-in look can reveal a new array of opportunities and threats. Climate change will affect a firm's business environment in two broad ways: through shifting temperature and weather patterns, and through regulations that increase the cost of emissions. Either can affect the availability of business inputs; the size, growth, and nature of demand; access to related and supporting industries; and the rules and incentives surrounding industry rivalry. Business leaders should evaluate how climate change may affect each part of this context for competition.

While property insurers' own carbon emissions may be low, for example, carbon exposure may be high for companies that insure or reinsure coastal real estate that is threatened by rising sea levels. Similarly, most of the carbon emissions associated with oil come not from oil companies but from their customers. Restrictions on emissions will constrain the demand for these companies' products. Or consider the multifaceted outside-in impact on a food company like Nestlé. Climate change will alter the relative productivity of various regions in which the firm buys agricultural commodities, affecting input costs. At the same time, the regulatory responses to climate change will raise the costs of energy used in keeping ice cream cold in retail outlets, which will affect demand conditions. And so on.

Firms can address outside-in effects strategically if they can manage them in ways that competitors cannot readily match. Nestlé eschews upstream vertical integration and instead outsources its raw material production. That makes its supply chain more flexible, which could provide valuable strategic advantage if the productivity of various regions shifts and Nestlé's competitors find themselves constrained by their more rigid supply structures. Likewise, drought-resistant crop strains and vaccines and treatments for insect-borne diseases will become increasingly valuable (as long as their innovators can protect their intellectual property).

Periodically, major new forces dramatically reshape the business world—as globalization and the information technology revolution have been doing for the past several decades. Climate change, in its complexity and potential impact, may rival them both. While many companies may still think of global warming as a corporate social responsibility issue, business leaders need to approach it in the same hardheaded manner as any other strategic threat or opportunity.

Comtec's Approach

We will minimise the amount of waste we produce by raising staff awareness and encouraging the recycling of office waste, such as paper and plastics.

We will also recycle cardboard packaging, UPS batteries, metal and plastic containment systems from customer sites as part of the installation / upgrade / update process.

Any other waste IT equipment including desktops, servers and monitors will be disposed through WEEE compliant recycling third party.

We will reduce the amount of energy we consume by continuing to use energy saving materials and procedures.

We will incorporate specific environmental requirements into contracts with principal suppliers and wherever practicable, specify products from sustainable sources, products made from recycled materials or designed to be easy to reuse or recycle.

We will comply with all relevant environmental, health and safety regulations and legislation at all times.

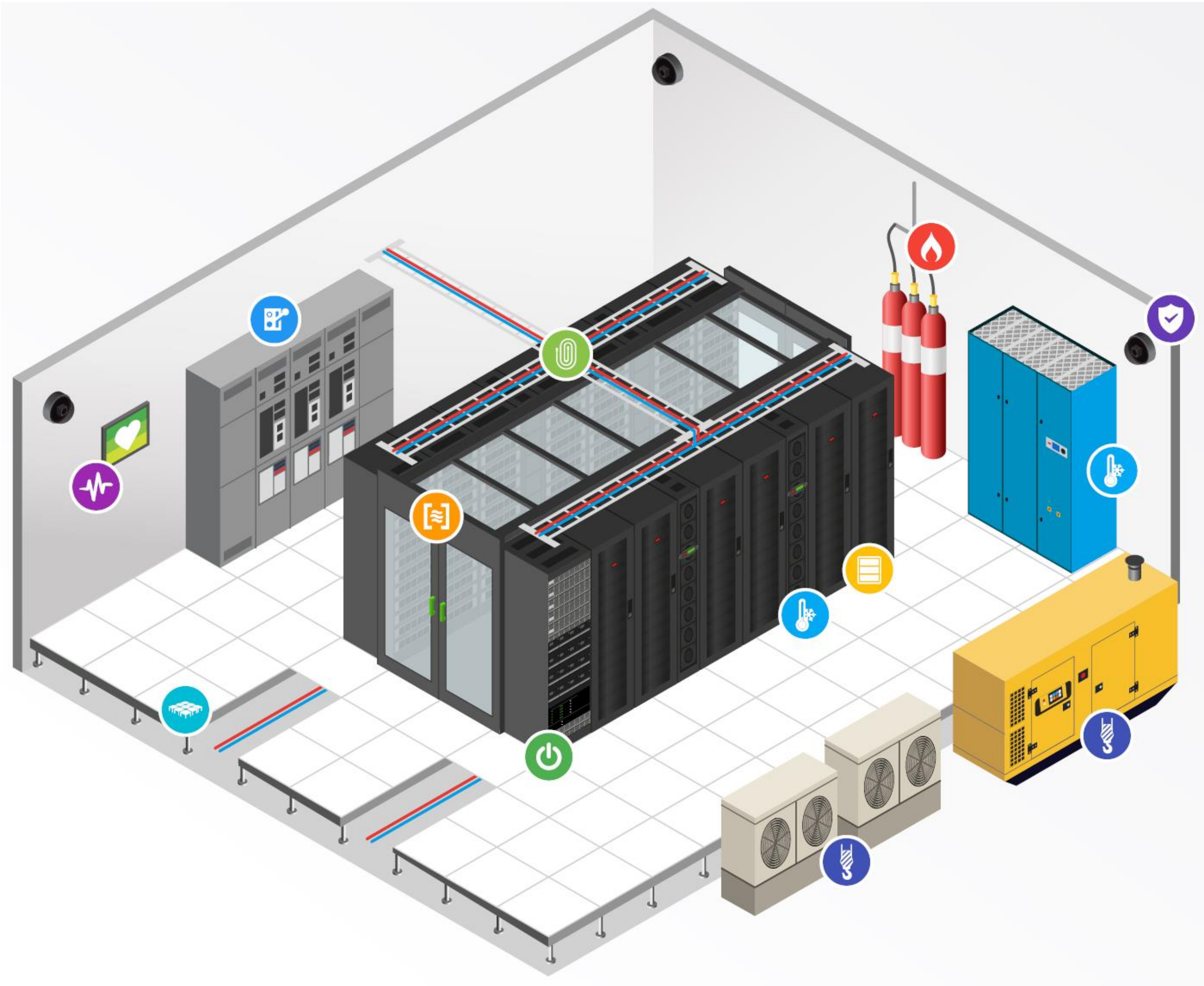
Whilst Comtec has promoted the use of unleaded petrol instead of Diesel in the past, in line with current trends it now promotes the use of alternative energy (such as Electricity) and public transport. Comtec's netzero division is in the design stage of releasing propositions for Electric Charging points for customers.

One of the main product areas of Comtec is Data Centre Design and Build and as such, we offer services to reduce the Power usage effectiveness (PUE) ratio of their data centres to reduce power usage and power running costs.

Comtec CleanCloud Services

Router and swicthes	Design, Supply and installation of LAN infrastructure including routers, switches and firewalls.
Servers	Supply and installation of all major Server brands
Remote Desktops	Hosted Remote Desktops including Infrastructure as a Service
Hosting	Co-location and hosting of servers and services inc Web Hosting
WiFi	Design, supply and installation of wireless technology
Storage	Supply and installation of Storage solutions including NFS, FC and iSCSI
Maintenance	Support and maintenance contracts for equipment and systems
Monitoring	StruxureWare monitoring plus extended monitoring and alerting of multiple devices and systems
Reporting	Monthly Report on your Hardware, Software and Services
Cloud Backup	Local & Cloud based backup solutions including Disaster Recovery as a Service
Consultancy	Consultancy, audit and security services
Telephony	Communication and Telephony services
Office 365	Office 365 services

Comtec Datacentre Services



Comtec Consultancy

Racks	Environmental Monitoring	Security
UPS	Plant Equipment	Fire Suppression
Cooling	Switchgear	Raised Access Flooring
Containment	Cable Management	Maintenace Services

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Full data centre consultancy for design and build, spacing, sizing, CAD work, 3D modelling, capacity planning, feasibility studies, design documents, energy and efficiency audits and full project management.

A full suite of racks and enclosures for servers, blade systems, networking, patching and communications equipment including cable management and secure access options.

Design, deployment and commissioning of full UPS solutions from static UPS, scalable, modular, 99% efficient systems to small rack based UPS's.

Design, deployment and commissioning of close coupled or InRow cooling, downflow or perimeter cooling, in rack cooling, scavenging units, free air cooling, adiabatic systems, liquid cooling and heat exchange systems.

Bespoke Hot Aisle and Cold Aisle Containment systems to increase the overall efficiency of your data centre/comms room and offer more cooling density per rack.

From a full DCIM (Data Centre Infrastructure Management) suite to simple power and cooling monitoring.

Design, deployment and commissioning of generator sets, cooling towers, chillers, condensers, free cooling plant, pump stations and all data centre related plant equipment.

Customised switchgear such as isolators, switchfuses, changeover switches, bypass switches, automatic transfer switches, busbar chambers, enclosed MCCB and ACB solutions.

Heavy duty ladder containment, basket and tray containment, in rack cable management solutions and patching solutions.

Physical security solutions such as access control, secure doors, man traps, biometric, fencing and containment.

Fire suppression, detection and prevention systems such as Inert Gas, Synthetic Gas, Hypoxic Air, VESDA with full integrity testing.

Medium and heavy grade raised access flooring systems including a full range of floor tiles, spreader plates, floor strengthening and structural surveys.

Full suite of maintenance services with tailored SLA's to support all aspects of the data centre environment.