

Carbon-reduction technologies:



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At the telecom industry's fingertips, but will it embrace them?

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EMBRACE IT.

It is no secret numerous industries and companies are attempting to reduce energy consumption. They are utilizing sustainable options that are environmentally friendly.

Increasingly, environmental issues are being brought to the forefront of political platforms, media and educational institutions. People are finally beginning to take steps to improve environmental positions. Emission reduction is becoming a desirable target, and in some cases may soon become a mandatory one. Why not change now?

Most industries want to embrace sustainability but are still reluctant to change the ways in which they operate. Companies are trying to do their part to consume less energy, such as using recyclable materials, staggering their lighting systems and creating work-at-home programs where employees become "telecommuters." However, they are dancing around the real problem, failing to see the bigger picture and truly utilize "green" technologies available to them. It is really about environmental responsibility for those industries with significant carbon emissions.

According to Ericsson.com, it is estimated by WWF (World Wildlife Fund) and ETNO (European Telecommunication Network Operators) that societal behavioural change using telecommunications could result in a reduction of energy

10 times greater than the amount of energy required to produce and deliver telecom services. Ericsson estimates societal energy use and CO₂e emissions could be reduced by 5-20 percent between now and 2020.

"Carbon emissions will pose one of the greatest risks and opportunities that Canadian companies will face in the next five years. A company's choice to either address this issue now, strategically working to track and reduce their carbon in a thoughtful way, or to wait until they are under the fire of public outcry and/or regulation, will shape not only their public image, but also their bottom line," says Katie Altoft, professor of environmental management at Niagara College.

An ongoing commitment to environmentally sustainable solutions is needed in the telecom industry, and education regarding this new way of thinking is crucial. With a little "thinking outside the box," telecoms can become true market leaders in the fight against climate change and inspire others to walk the same path.

The ability exists to reduce the world's carbon footprint by adopting more efficient infrastructure and technologies, and facilitating less carbon-intensive work practices. These technologies are a great way to cut operations expenses (OpEx) in the wake of rising energy prices, as well as benefiting the environment.

Furthermore, these technologies allow companies to reduce their carbon footprint and offset the carbon emissions associated with business activities such as transportation, production, electricity usage, employee commuting and air travel.

Using the Earth's natural energy sources, such as wind power and solar energy, reduces maintenance concerns and the costs that come with traditional technologies.

With carbon-reducing technology comes the opportunity for carbon credit trading. Carbon trading is an economic vehicle for reducing carbon through financial incentives that will reward changes in current behaviour.

Carbon credit brokers are creating a new economy – their own stock market of sorts – by buying and selling carbon offsets, the net result of CO₂e emission reductions. These brokers aid companies in developing an income stream from the buying and selling of carbon credits.

James Kanter of the New York Times called emission management one of the “fastest-growing specialties in financial services.” The market is now worth about \$30 billion, and “that could grow to \$1 trillion within a decade.”

Additionally, Altoft cites the largest existing carbon trading scheme is the European Union Emission Trading Scheme (EU ETS). In 2006, 1.1 billion tonnes of CO₂e were traded through the EU ETS at a value of \$24.3 billion.

“With the advent of carbon trading and certain jurisdictions that now mandate the requirement to reduce carbon emissions, the concept of carbon trading is beginning to be more widely understood,” said Altoft. “Governments are implementing strategies and regulations that encourage companies to consider using technologies which emit less CO₂e into the atmosphere.”

Altoft explains most existing trading schemes feature a “Cap & Trade” system, where a limit is set by a central body on the total amount of emissions allowed in a region. Companies are issued emission permits based on what portion of this total they are allowed to emit. They can then either buy or sell credits depending on whether they are above or below their mandated target. Over time, targets are low-

ered and fewer permits are granted, reducing the overall release of CO₂e in the atmosphere.

In addition to the EU system, the Chicago Climate Exchange (CCX) is gaining momentum in the United States. Ontario and Quebec have signed a memorandum of understanding to establish a trading scheme, along with the Western Climate Initiative, which will establish a regional US/Canadian scheme. Many financial analysts feel the carbon offset market will become not only the largest commodity market, but also the largest market overall.

Therefore, there is immense value from investing in environmentally-conscious solutions alone, not to mention the importance of promoting and declaring your company as “green.”

One company realizing this importance is WireIE Holdings International Inc., of Richmond Hill, Ont. A relatively young company funded by the New Carbon Economy Fund, WireIE is actively involved in the shift from traditional technologies to cost-cutting “green” solutions for the telecom industry. These solutions can include the planning and delivery of certified emission reduction projects, implementation of renewable energy sources and arranging carbon trading contracts.

“WireIE is in the business of providing carbon-reducing telecom solutions to ensure that the tenfold benefits of using telecom solutions to offset carbon are achieved,” said Robert Barlow, president and CEO of WireIE.

WireIE also offsets certified carbon emissions from airline travel and office space through its business partner, Carbonzero.

A report entitled “SMART 2020: Enabling the Low Carbon Economy in the Information Age” has great insight into how IT can help organizations and individuals reduce their carbon footprint, and is available at no cost at www.gesi.org. GESI stands for Global e-Sustainability Initiative.

This report estimates that IT has the potential to reduce global emissions by 15 percent by 2020. It states, “This represents a significant proportion of the reductions below 1990 levels that scientists and economists recommend to avoid dangerous cli-

mate change. In economic terms, the IT-enabled energy efficiency translates into approximately \$US100 billion of cost savings. It is an opportunity that cannot be overlooked.”

The report also touches on many ways IT can help us move towards a more sustainable world, including smart buildings, reduced travel, a smaller IT footprint and industrial automation.

Companies that do not adopt this shift face grave implications.

Altoft reiterates carbon is not just an environmental issue, but also a risk – financially and reputation-wise. It will also become a compliance issue in the future, as a price will be put on carbon. The law of supply and demand dictates the price of oil will rise, but it is impossible to predict how and when, as current estimates give us another 50 years of oil at best. Changing energy sources and/or reducing energy are the most significant ways to reduce carbon.

Change in the marketplace needs to happen if the environment has any hope of improving. Telecoms have the capability to deliver solutions that can affect the world and create a low carbon economy. They need to focus on suitable technologies for mitigating climate change and consider renewable energy instead.

Together we can set an example for other industries around the world and pave the way for a new “green” way of thinking. A shift will be needed as time goes on and we are faced with the further challenges associated with climate change.

Carbon-reduction technologies are at the telecom industry's fingertips.

The question is will it embrace them?

For more information regarding WireIE's carbon-reducing technologies, contact Robert Cressatti, product manager, at robert.cressatti@wireie.com ■

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