



Preparing for a New North American Low Carbon Economy

Over the last few months there have been numerous milestones in the carbon legislation market. Many organizations are asking "What does this mean for my organization?". For organizations that consume energy, goods, and raw materials, using energy is going to cost more with a market-based carbon surcharge¹.

The critical milestone has been passed by the US House of Representatives on June 26; a massive bill aimed at improving U.S. energy independence and curbing domestic greenhouse gas emissions. Known as the American Clean Energy and Security Act of 2009² (commonly referred to as the Waxman-Markey Bill), the bill was introduced on May 15 by Energy and Commerce Committee Chair Henry Waxman and Subcommittee on Energy and Environment Chair Edward Markey.

Canadian government is paying close attention, because among other things this legislation would allow the U.S. to impose tariffs on imports from countries that do not impose similar greenhouse-gas emissions cuts. If this bill or similar legislation passes, Canada would then have a motive to tackle their own emissions: access to U.S. markets.

Most people agree that it is becoming very likely that emissions trading will commence in the U.S. within the next few years. Even absent legislative action, the EPA has recently made an "endangerment finding" with regard to carbon dioxide that opens the door for executive action. In whatever form, the U.S. emissions trading initiatives will have a major impact on the North American economy and policy options.

All organizations need to prepare for this economic shift. Many expect that the basic fabric of society will be changing over the next 30 to 50 years and many have compared the carbon market to the pre-dot-com era. The world carbon market is estimated to be worth \$3.1 trillion dollars by 2020³. All businesses, even if not directly affected by mandatory legislation, need to be aware and develop strategies that position their organization for a low carbon economy.

¹ For a future cost of carbon ranging from \$10 to \$50 per metric ton.

² An official summary of the American Clean Energy and Security Act is available at:
http://energycommerce.house.gov/Press_111/20090331/acesa_summary.pdf

The full-text of the bill is available at:

http://energycommerce.house.gov/Press_111/20090331/acesa_discussiondraft.pdf

³ <http://www.triplepundit.com/pages/carbon-point-st.php>



“Companies that are more carbon efficient than sector peers, in terms of their internal operations and supply chains, stand to gain a competitive advantage. Now is the time for companies to begin measuring and reducing their carbon emissions to ensure they are well positioned to minimize the risk of climate change regulation. Already we are seeing increased interest from investors looking to reduce their own risk by positively selecting those companies with lower carbon emissions, and this is set to increase in the future.”

Simon Thomas, Chief Executive of Trucost¹

A combination of increasingly international adaptation and mitigation strategies are being developed that should deliver a new economy based on low- and no-carbon energy sources. The Obama administration and the U.S. legislature have set in progress a series of actions that, once signed into law, will significantly reduce uncertainty around the nature and timing of this new low carbon economy⁴:

- President Obama’s initial budget calls for approximately \$80B per year in “climatic revenue” from 2012 onward, setting a clear target date on the commencement of economy-wide carbon pricing.
- The Environmental Protection Agency (EPA) has declared carbon dioxide and other greenhouse gases as pollutants under the Clean Air Act (providing the opportunity for executive action without specific further legislation). The EPA has also published proposed guidelines for mandatory reporting of greenhouse gases. Mandatory reporting clearly defines who will be required to submit reports to the EPA and other government departments and sets January 2010 as the date to begin reporting.
- The proposed American Clean Energy and Security Act of 2009 (commonly referred to as the Waxman-Markey Bill) sets out the mechanism by which global warming pollution will be directly addressed. It establishes a market-based program of tradable federal pollution permits (allowances), which are required to be surrendered by heavily polluting (facility-scale) entities. These include all facilities that annually emit more than 25,000 tons of CO₂ equivalents and are dominated by electric utilities, oil and gas, and large industrial sectors. Emission reduction and an accelerated migration to efficient energy sources will be achieved by reducing the total number of allowances over time, delivering the much talked about cap-and-trade carbon pricing model.
- More generally, President Obama has made international commitments to large-scale reductions in GHG emissions and a transformation of the energy dependence of the economy moving forward. This transformation is a central element of the American Recovery and Reinvestment Act of 2009, more commonly referred to as the Federal stimulus package.

⁴ Based on AMR Research <http://www.amrresearch.com/Content/View.aspx?compURI=tcM:7-43922>



These moves herald the regulated introduction of carbon as a cost of doing business and radically changes relationships between corporations and environmental regulations. The change likewise brings associated costs, risks, challenges, and opportunities to organizations and their supply chains.

Even though your organization may not be required to report on your carbon footprint, identifying risks and opportunities is an important step for all organizations. A few organizations today voluntarily track and manage their carbon footprint data. Many of these organizations identify competitive advantage as a significant factor, emphasizing the strong marketing and messaging associated with the green agenda⁵. Numerous studies indicate that a large percentage of companies and investors are unprepared for carbon legislation and navigation within a new carbon-economy. Studies indicate that two-thirds of S&P 500 companies have inadequate greenhouse gas emissions disclosures⁶.

Political, environmental, economic, energy security, and GHG emission-related factors have converged over the past few years, accelerating during the economic downturn of 2008–2009 to force a fundamental reorientation of policy directions relating to energy and emissions. Many anticipate an economic transformation and a new economic environment—one with the strategic priorities around energy and emissions rising significantly, and with carbon as a fully internalized cost of doing business.

Here are few high-level guidelines to developing a low carbon business strategy:

Start now...

The last few years have proven that early action has proven to deliver enhanced brand and shareholder value for such organizations as GE Ecoimagination and Walmart. There are also numerous cases that show early action can help not only reduce emissions, but also costs. Delaying action may result in damage to reputations and will ultimately be more expensive.

Measure, monitor, and manage your organization's carbon footprint to gain a competitive advantage...

There are numerous questions that organizations should ask themselves.

What are the main sources of my emissions?

Where can actions have the biggest impact?

What projects should I implement that provide an acceptable ROI?

How do I engage stakeholders such as investors, employees, and suppliers?

Will actions within my supply chain have a large impact?

One of the best ways to answer all of these questions — and showcase your organization's environmental stewardship — is to measure your organizational carbon footprint. The sooner companies start the learning curve required to deliver such footprints, the less total pain there will be and the greater the reputational enhancement.

⁵ The New Age of Carbon <http://www.amrresearch.com/Content/View.aspx?compURI=tcm:7-43922>

⁶ Carbon Risks and Opportunities in the S&P 500 http://www.irrcinstitute.org/pdf/irrc_trucost_0906.pdf



Michel Girard, PhD, of the Canadian Standards Association provides a comprehensive overview of how to “measure, monitor and manage your organization’s carbon footprint to gain a competitive advantage”⁷.

Link your energy consumption to a carbon management strategy...

Most organizations’ emissions are a result of energy consumption within buildings and company vehicles. By analyzing energy consumption, an organization opens the door to building an effective carbon management strategy and reducing energy costs.

Understand your risks within this new carbon economy...

Cap-and-trade, mandatory compliance, and other regulatory risks are likely to affect only a small portion of the marketplace. However, there are various other risks associated with carbon management that should be identified and tracked. These include physical risks associated with the supply chain (e.g., impact of extreme weather events, changing temperature and rainfall patterns, sea level rise, security of supply, and disease) and financial and other risks (e.g., carbon pricing, changing consumer demand, resource cost increases, reputation, and stakeholder demands).

Consider a growth strategy and access opportunities...

Identifying how your products and services can be integrated is an important consideration. Numerous organizations have established new revenue streams for their green products and services. Many of these organizations have been able to grow or maintain value during the economic downturn.

Start building your internal expertise...

Carbon management is unique to each individual organization, as it is closely related to its internal operations. Operational understanding and linkage to carbon management will take time and resources. The ability to navigate the new carbon economy in part depends on having sufficient internal knowledge to remain agile and adaptable to a highly dynamic and complicated business agenda. Start by building a green team that has executive support and multi level organizational representation.

⁷ Green Business <http://www.green-business.ca/Measure-monitor-and-manage-your-organizations-carbon-footprint-to-gain-a-competitive-advantage.html>



The transition to a low-carbon economy will bring challenges for competitiveness but also significant opportunities for growth. Carbon management is a core element of preparation for the new economic environment. Ignoring climate change or the carbon agenda will damage economic or business growth. Addressing energy usage and GHG emissions is a pro-growth strategy whose cost is proportional to the timing of actions. The internalization of carbon as a critical factor in economic growth is a unique challenge—and one which we urge all manufacturers to take seriously.

The New Age of Carbon¹ - Stephen Stokes, Kevin O'Marah

About e3 Solutions Inc.

There's no question about it—thriving in the 21st century will depend on the ability to track, manage and report on climate, environmental, carbon and GHG-related risks with speed and precision. Designed to support the demanding Corporate Social Responsibility (CSR) programs of Fortune 1000 companies, e3's industry-leading software and services helps top organizations across North America measure, monitor and verify their environmental and carbon footprints.

Through an integrated suite of applications and supportive tools, e3 Solutions offers the most effective enterprise carbon management software system available anywhere in the world. Sophisticated environmental information management and incident management solutions round out our offerings.

Linking the utility room to the boardroom, e3's Enterprise Carbon Management software delivers the comprehensive greenhouse gas monitoring, management and reporting capabilities today's organizations need.

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Additional information about e3 Solutions is available at www.e3solutionsinc.com