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INSIDE

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Focus Report

Climate Risk Disclosure: Who Stands to Benefit?

On 18 September 2007, a group of investors, consisting of Ceres, the California Public Employees' Retirement System (CALPERS), F&C Asset Management, and the New York City Comptroller, forwarded a petition to the US Securities and Exchange Commission (SEC) asking for additional disclosure of "climate risk" in listed companies' earnings and operational statements (*www.riskmetrics.com*). Their intent is to require public companies to report this information in their regular reports to shareholders. According to the group, accounting for climate risk would require including new regulatory costs and procedures to manage them, the reporting of any physical damage to operational facilities due to changes in weather, and noting any changes in the demand for products or services related to climate change.

An excerpt from the petition reads, "The days are long past when climate risk can be treated as a peripheral or hypothetical concern. Companies' financial results increasingly depend upon their ability to avoid climate risk and to capitalize on new business opportunities by responding to the changing physical and regulatory environment."

The coalition, which manages over US $1.5 trillion in assets, is petitioning the SEC to have companies provide detailed disclosure of physical risks material to financial condition, the risks and opportunities related to greenhouse gas (GHG) regulation, and any legal proceedings related to climate change. Of course, the level of disclosure would vary with each organization, based on their specific industry and individual operational circumstances.

While SEC disclosure rules require that listed companies provide "material" information to investors, such as various SEC filings (10-Ks, Annual Reports, etc.), the coalition's position has been that corporate disclosures on climate change have been "scant and inconsistent." The petition urges the SEC's Corporation Finance Division to "begin closely scrutinizing the adequacy" of such disclosures.

To be fair, determining risk from climate change is not necessarily straightforward or easy. For example, while ExxonMobil's 2006 annual report noted that its worldwide operations could be affected from time to time by factors such as severe weather, it was not specifically tied to climate change. Therein lies the rub — where does the line get drawn when linking catastrophic events like hurricanes, tornadoes, or wildfires to climate change, when trying to drill down to the causal factors? And how many data points need to be evaluated during such analyses?

From an ISO 14001 perspective, one analogy would be in trying to set realistic boundaries to determine environmental performance indicators of industrial processes within the framework of an environmental performance evaluation, as described in ISO 14032:1999. Another example would be trying to set objectives and targets that go out to the regional and global level in an expanded aspects/impacts analysis associated with industrial processes or products' supply chains' environmental impacts. Capturing such boundaries can be a daunting task with almost unlimited data points. Where does one set the limits then to arrive at practical values? The answer to this seemingly elusive question is among the stumbling blocks for companies to address how to best qualify and quantify climate risk disclosure.

The American Insurance Association's Position

To gain additional insight, ***BATE*** contacted key members of the American Insurance Association (AIA; *www.aiadc.org*), an advocacy association for property and casualty insurers. ***BATE*** was fortunate to have had David Snyder, vice president and assistant general counsel for the AIA, take the time to discuss AIA's thoughts on the issue of climate risk and what it means for the AIA.

As David sees it, "Determining climate risk has a lot of layers of complications … the link between climate change and natural catastrophes depends upon a number of factors. The science is still developing. There are many scientists who believe that it's all linked; other scientists aren't so sure." He also added a few thought provokers: "Is a hurricane caused or aggravated by climate change? What about wild fires? The issues are still being hotly debated."

The AIA believes that insurers are a few steps removed from those organizations that should be required to disclose relevant information, such as energy companies and large industrial polluters, and even though many insurance companies report as well, they are not the big players. A good example of voluntary disclosures made by some insurers is the Carbon Disclosure Project (CDP; *www.cdproject.net*), and according to David, "It's a beginning to see where voluntary disclosure is being made … it's an example of the voluntary efforts that should be evaluated for the future." The CDP is a UK-based nonprofit that regularly publishes data on the carbon footprints of many of the world's largest corporations. The CDP's latest emissions report (*Carbon Disclosure Project Report 2007*) of the Global FT500 companies can be downloaded from *www.cdproject.net/cdp5reports.asp*.

For the present, David feels that all disclosures should remain voluntary and qualitative until we have a better handle on whether any disclosures by insurers are relevant and useful. Beyond disclosures, insurers are increasingly engaged in other proactive activities, such as advocacy for loss mitigation, including better land use planning and new insurance products to support other industries' green initiatives.

The CDP and Supply Chain Leadership Collaboration

At the forefront of the proponents of climate risk disclosure is the CDP. The CDP continues to make headway in its efforts to expand emissions data disclosure as a means to better understand climate risk. ***BATE*** is grateful to CDP spokesperson, Joanna Lee, for her assistance

Group Publisher: Paul Gibson
Editor: Martha Hyder
Designer: Don Torres
Managing Editor: Vicki Dean
Contributing Editors: Gabriele Crognale, Jane Heinze-Fry, Gene Fry, Denise Seldon, Connie Steinhaus, and Heather Wilson
Editorial offices: Editor Martha Hyder can be contacted at *martha.hyder@windriverenvironmental.com*.

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in providing timely responses to ***BATE***'s questions relative to the report.

The CDP's role is that of secretariat for over 300 institutional investors managing assets of over $41 trillion. Investors include Goldman Sachs, Merrill Lynch, AIG, Barclays, HSBC, CALPERS, and many others. Each year, the CDP sends an information request to the largest listed companies to request information on GHG emissions, assessment of risk and opportunities, and strategy on climate change. The CDP believes you have to measure your emissions before you can manage them and the CDP plays a vital role in that process.

In addition to the launching and releasing of this latest CDP disclosure report, a number of large multinationals, such as Procter & Gamble, Wal-Mart, Unilever, and Nestlé SA, have encouraged their suppliers to report their GHG emissions in an effort to showcase how they plan to battle climate change. This new group, called the Supply Chain Leadership Collaboration, was formed in partnership with the CDP. According to a recent article in the *Wall Street Journal* (WSJ; 9 October 2007), the effort is being precipitated by a growing belief that more stringent climate change laws could drive up some business-related costs. As global leaders jockey for position to address the next commitment period of the Kyoto Protocol, an air of uncertainty hangs over many US multinational companies as to how far proposed federal regulations may impact their businesses. Coupled with rising energy costs, these regulations could affect both the upstream and downstream supply chain. For this reason, some downstream companies are taking preventive action to mitigate upstream costs.

As Bill Greggs, Associate Director, P&G Global Sustainability Group, notes, "Everybody who uses energy will be impacted if energy prices go up, from the oil wells through the farms and factories, all the way through the retailers to our consumers."

The CDP's Efforts

As noted in the *Carbon Disclosure Project Report 2007*, Global FT500 (also referred to as CDP5 FT500), a greater number of carbon-intensive FT (*Financial Times*) 500 companies are going to be exposed to GHG emission regulations. Given that, a number of key players have starated to incorporate estimated carbon costs into capital planning models. In addition, many industry analysts have also revised their valuation models to assess companies' exposure to carbon risks and opportunities. The report provides investors with a unique analysis of how the largest multinational companies are addressing climate change.

The key findings of the CDP report include:

- The gap between climate awareness and action continues to narrow.
- CDP5 generated the highest ever response rate: 77% (383 companies) of the FT500 answered the CDP questionnaire, compared to 72% in CDP4 (2006). Europe leads with the highest regional response rate.
- Carbon-intensive firms are uniting in favor of carbon regulations, for example the US Climate Action Partnership (USCAP).
- There have been improvements in carbon accounting and response quality.
- A substantial number of companies remain behind the curve.
- Climate change is yet to achieve top-tier management status.
- Wide variations in risks and opportunities underline the importance of the CDP.
- Compliance costs associated with GHG regulations remain uncertain.
- Improved GHG accounting leads to increases in reported emissions.
- The renewable energy market continues rapid growth.
- Increased investor collaboration eclipses previous marks.
- Climate change is emerging as a key issue in global politics.
- Climate science is gaining widespread acceptance.
- Extreme weather events persist.

Additional key findings with weighted values from CDP5 FT500 worth noting describe what some respondents foresee as critical items requiring some form of action:

- 79% of respondents consider climate change to present a commercial risk. These risks can be categorized as physical, regulatory, competitive, and reputational.
- 95% of companies that consider climate change to present a commercial risk have implemented a GHG reduction program with a specific target and timeline. This trend suggests that a majority of firms recognize the financial and reputational benefits of improved carbon performance.
- 82% of responding FT500 companies recognize commercial opportunities for existing or new products and services as a result of climate change.

The CDP report concludes that FT500 companies have made considerable strides in both understanding and disclosing their positions relative to climate change. CDP bases its conclusion on an analysis of the strategies and management tools that companies have recently developed to mitigate potential negative financial issues while improving competitive positions regarding climate change. One finding of particular interest to the CDP shows that the gap between awareness and action appears to be narrowing among the respondents. However, the gap with investors has changed little. The CDP believes that, unless and until governments agree on how to address GHG issues, investors will lack the incentive to act and the full potential of the project may not be realized.

For additional insight, Paul Dickinson, CEO of CDP, provided ***BATE*** with responses to the following questions.

BATE: Where does the CDP see carbon disclosure going as attested to by the scores listed in CDP's latest project?

CDP: Every year the number of companies who respond to CDP increases and the detail in the responses increases. More and more companies are measuring their emissions and implementing reduction targets. CDP sees this trend continuing in the coming years as more and more companies understand the need to plan for a carbon constrained world.

BATE: What does the CDP think about the values companies provided, and what additional items could be added to your questionnaire to help better nail some causal factors attributable to climate risk, if it can be done?

CDP: Some companies provide extremely detailed responses, others less detail. There is still work to be done on enhancing the quality of the responses and this is part of the key CDP plans. Every year the questionnaire is fine tuned to reflect the requirements of our signatory investors in collecting climate information from the companies they invest in.

BATE: How does the CDP feel about requiring publicly held companies to report on their financial risk from global climate change?

CDP: CDP naturally supports reporting on climate change risk and opportunity. In many countries there are different proposals for regulations in this area. CDP does not represent investors on this matter, but the CDP Secretariat generally supports well-constructed proposals for this kind of requirement.

BATE: Would a voluntary approach work better in your estimate? How do companies in the United Kingdom report?

CDP: Currently the CDP system is voluntary and works very well as such. In the UK, 92% of FTSE100 companies respond to CDP. The response rate for the Global FT500 sample is 77%.

BATE: If so, what parameters do you feel would be important for companies to report on to make their disclosures relevant, valuable?

CDP: The CDP questionnaire is designed to illicit all the information our investors see as relevant from listed companies. Let me refer you to the CDP questionnaire on our Web site *www.cdproject.net*. It is key that companies disclose their emissions data, as once they have measured their emissions, they are in a much stronger position to manage them.

BATE: Do you think that a company certified to ISO 14001 would be more suited to address the reporting issue? How so? Or is that irrelevant?

CDP: We have no opinions about ISO 14001 but we are working with the GHG Protocol Team (*www.ghgprotocol.org*) and the International Organization for Standardization (ISO) to harmonize reference to their complementary reporting standards. CDP in 2008 is likely to reference both.

BATE: Any closing thoughts on the whole issue of climate risk/carbon disclosure you can share? Where do you see this headed in 1 year? 5 years? 10 years?

CDP: CDP aims to be present in all major economies in the next four years, and also aims to illicit information from private as well as publicly listed companies and encourage them to measure and manage their emissions. By engaging more and more companies globally with carbon disclosure, CDP aims to help them manage and reduce their emissions.

Epilogue

It stands to reason that, to better assess the effects of climate change, we need to have a better handle on the interrelationship between our business (and, to a lesser extent, our personal) activities and their effects on the global environment. A program of disclosure, such as espoused by the CDP, is a good start, as noted by the AIA. As the process evolves, more players will be added and the questions will be fine-tuned, no doubt leading to additional areas to investigate. At some point, perhaps, there will be some answers that could point to causal factors in the area of climate risk. In essence, mankind stands to benefit. ■

CONTACTS: Dennis Kelly, AIA, E-mail: *dkelly@aiadc.org*. Joanna Lee, CDP, E-mail: *Joanna@cdproject.net*. For ***BATE***, Gabriele Crognale, E-mail: *mriso14k@yahoo.com*.

EBSCO Publishing: A Small Company with Big Ideas for the Environment

A small revolution of sorts has started in Ipswich, Massachusetts (USA), a small but quaint Cape Ann area town, just north of the fishing port of Gloucester, the setting for the movie "The Perfect Storm." If EBSCO Publishing (EP) gets its way, its revolutionary environmental stewardship efforts will have a ripple effect that will far transcend this seaside Old Yankee enclave, making for its own "perfect storm" in the world of business and information technology.

BATE is extremely grateful to Tim Collins, President of EBSCO Publishing, Beth Howell, VP of Human Resources, and Kathleen McEvoy, Media Relations Manager, for sharing their company's "Green Ideas," including a whole battery of environmental initiatives, from recycling, to hybrid company cars, to alternative energy sources, and more. What started out as an interview about solar panels on the roof grew into something more, the tip of the iceberg into a small company that is making waves as an innovator among larger environmental stewards.

The Catalyst

EP first came to ***BATE***'s attention when a local television station (WCVB-TV) aired a news piece about a small local company that had decided to install solar panels on the roof of one of its main buildings in an effort to reduce its dependence on fossil-fuel generated electricity. When asked what prompted EP to make the switch to solar power, Tim said matter-of-factly that he owes it all to the Al Gore film, "An Inconvenient Truth." After seeing the film, Tim decided to form a "Green Team" sometime in early 2006, which Beth now spearheads. The "Green Team," as Tim envisions it, will be the basis for moving EP's environmental stewardship forward, and, as he explained, "We have the potential to make a positive impact on the environment by our actions and, if other companies could become aware of what they are doing, the cumulative effect on the environment could be a significant positive factor." He added, "If we can act as a catalyst, it's more likely we'll see a significant (positive) change."

Regarding the solar panels, EP has been fielding calls about what they're doing after the story ran in the news. The company, which provides research databases to industry, government agencies, schools and universities, and libraries around the world, has received a call from a librarian interested in replicating their achievements. Even the Town of Ipswich has become infected by EP's efforts; Town officials have looked at zoning changes that will make it easier for businesses and residents to implement alternative energy systems, should they so desire.

The Green Team

According to Beth, the Green Team, which is currently at 30 employees, is both voluntary and departmental. The goal for each meeting is to identify and prioritize those projects that will benefit the environment. The team process is to first evaluate the ideas that come up for discussion, go off into the work area and report back on the ideas that have been raised, and then follow through on implementation.

One such example was the installation of the solar panels. As Tim elaborated, "If a decision is companywide, it will get implemented." The other initiative that became companywide was the purchase of green (or hybrid) cars. Tim added, "We have a fleet of 45 company cars. Once a new car is needed, we replace it with a hybrid. As of September 2007, we are at about 30% hybrid cars."

In addition to the Green Team, the company also rolls out an informative newsletter, *AboutEP*, with the latest issue devoted to Green Ideas at Work. That issue was chock full of the company's environmental accomplishments, including a description of the "Green Zone," a concept generated by the team of people at EP who are volunteering their time to generate, research, and implement new ideas for environmentally sound practices. Simply put, the Green Zone is a culture, an attitude, a mindset, a way of life. It's EP's way of doing business. The Green Zone evolved from preliminary discussions regarding how company employees could nurture environmental stewardship within the workplace.

Among the green initiatives currently in place that encompass the Green Zone are:

- Individual recycling bins. The company purchased individual paper recycling bins for every employee. The bins make it more convenient for employees to recycle their paper waste.
- Cardboard recycling. Broken down cardboard and similar paper products can be deposited in designated recycling bins.

- Bottle/can recycling. Bottle and can recycling bins have been placed throughout the campus to facilitate collection.
- Recycled printer/copier paper. The company has found one brand of recycled paper that works well in their printers and copiers. EP plans to gradually switch to this brand as their current stock is used up.
- Vending machines. The Company has installed "Vending Misers" on their vending machines and coolers around campus. These devices are designed to control the flow of electricity to the vending machines and help reduce energy consumption by 50%.
- Public transportation. The Company is a MassRIDES partner, which offers employees opportunities to find passengers for their car or vanpool, an Emergency Ride Home program for carpoolers, Vanpool Assistance, and travel information via *www.commute.com*. To become a partner, EP had to commit to a certain level of support for its commuters. The support includes commuter rail reimbursement, bicycle racks, showers, and informal flextime. The company had been offering these for years prior to the partnership.
- Energy management system. Implemented in the construction of one building that is expected to save over 20% in energy costs per year. Additional systems are planned in two other buildings on campus.
- Timers and motion sensors. These shut off lights when rooms are not in use.
- Lunchtime talks/seminars for employees. The talks feature guest speakers from Mass Audubon, a local conservation land trust, and other relevant sources.

The Solar Panel Project

The photovoltaic system consists of 192 solar panels installed on the roof of the Quartz Building, formerly part of an old Sylvania plant. ***BATE*** was provided with an up-close view of the fixed panel array. When asked how they arrived at fixed panels, EP said that the installation contractors had advised the company that fixed panels would work best for them versus movable panels. The company has plans to add a second, similar array by the end of the year. EP will spend approximately US $600,000 on the nearly 400 panels it installs. Each 192 panel system is designed to produce 36 kilowatts (kW), which equates to about 41,300 kilowatt-hours (kWh) of electric power. That should eliminate over 18 tons of carbon dioxide each year. A smaller solar system will also be added to provide hot water for the company's kitchen, which provides breakfast and lunch for the 600+ employees at the company's Ipswich headquarters.

Added Tim, "Our efforts have had a very positive impact on all the employees. Once they realize the nature of the company, and that we are <u>not</u> solely driven by profit, employees see the company for what it is, and that doing the right thing for the environment is important to us. Our work, especially the solar panel project, helps to highlight the company's social responsibility efforts." He added, "What is the argument for not being environmentally responsible? Nothing. Therefore, we should do it. Why would you disrespect the planet?"

Green Team Benefits and Future Plans

We wrapped up the interview with a few closing thoughts from the participants. Beth summed up her involvement, "The Green Team benefits are difficult to measure — what we have is anecdotal. We did generate an employee satisfaction survey and found that employees are cognizant of the Company's social responsibilities, and we were also pleased to get feedback from job candidates about our recycling bins, the Green Zone logo, and other Green Team projects throughout the facility. Employees also see that the Company is serious about the environment, and we encourage employees to use our intranet to submit green ideas."

Any savings realized to help offset the solar panel array costs? Beth said that the company had saved approximately 6.4% of their energy consumption, which translated to $15,000 in savings over a 6-month period. EP realized the savings by switching to server utilizations and Smart Building Technology in their Data Centers.

Tim's take on future plans, is, well, more solar panels. He also said that they will try to continue the process and gather new ideas and accelerate their environmental efforts as possible. They will also enter into more outreach opportunities, such as the news story that ran locally, and print vehicles, like this ***BATE*** interview.

Tim added, "It would be good to encourage folks to reflect on the role of the environment in their lives and prioritize it against the other things they focus on to ensure they don't have any regrets by not focusing on it now." In summary, Tim said, "The train has left the station — (the environment) is part of what the company does … it's part of our identity."

Beth had an interesting comment that was a theme of sorts for how this interview came to be, "One of the messages in 'An Inconvenient Truth' that stuck in my mind, was that small things can make an impact, and in companies, starting small is OK … as long as you start."

As the company's flyers in the front lobby state "—Into the future, EBSCO Publishing's goal is to continue to grow as a company while simultaneously making a positive impact on the environment. In today's business climate, many feel that successful growth and environmental stewardship are often mutually exclusive concepts. However, here at EBSCO Publishing we believe the opposite to be true. In order to truly achieve long term success, a company must proactively take care of the land and resources that have helped to sustain the organization through its many years of development."

Tim's closing comment during our interview was a message that could be a billboard caption for a global warming poster, "Our offices are about a mile away from the Atlantic Ocean, we'd like to keep it that way!" How do you follow that punch line? ■

CONTACTS: Kathleen McEvoy, EP. Tel: +1 978 356 6500, ext. 2594; Email: *kmcevoy@ebscohost.com*; Web site: *www.ebscohost.com*. For ***BATE***, contact Gabriele Crognale at *mriso14k@yahoo.com*.

Corporate Reporting

Open Season for CSR: GRI Readers' Choice Awards

Sustainability reporting has become part of many businesses' annual publications. But barring related shareholder resolutions, it is often unclear just who composes the reading audience, and whether the information is meeting their expectations. Is it truly worth the time and effort to produce a detailed analysis of sustainability practices — or are the "basics" adequate? To better assess these questions, the Global Reporting Initiative (GRI) has opened its Readers' Choice Awards and survey. Through 31 December 2007, GRI is offering a chance for sustainability report readers to critique sustainability reports based on five scoring criteria. Each criterion may be weighted prior to beginning the survey, and the reports and surveys are available in English, Spanish, Portuguese, French, and Japanese.

There are several ways in which you or your company may be involved in the survey and awards process. Obviously, a larger number of readers will ensure more meaningful survey results. GRI estimates that, for a report to have a statistically significant sample, it will need to be reviewed approximately 51 times. As an incentive, individuals who score at least two reports by the 31 December 2007 deadline will be eligible to win one of eight all expenses paid trips to the Amsterdam Global Conference on Sustainability and Transparency, to be held 7–9 May 2008. The conference will feature both the GRI Readers' Choice Awards ceremony and the launch of the *GRI Readers' Choice Survey Report*. The winning readers will present the awards to the winning reporters.

If your organization is in a position to promote participation within your sector or geographical region, consider becoming a Network Partner. Network Partners will also be recognized for their participation at the Amsterdam conference. Contact GRI for more information via e-mail at *awards@globalreporting.org*. GRI also welcomes the addition of reports not already featured in their survey. To check that your company's report is already targeted, or to add it to the survey offerings, see GRI's Readers' Choice Web site at *http://awards.globalreporting.org/report.do*.

In addition to an award for the overall highest scoring report, awards will be given to the highest scoring reports from non-profit organizations, "not-so-big businesses," and companies headquartered in countries that are not members of the Organisation for Economic Cooperation and Development. Further, awards will be given to the sustainability reports that score highest from each of five different reader groups — financial markets, civil society, employees, corporate governance, and the media. ■

CONTACT: Global Reporting Initiative, P.O. Box 10039, 1001 EA, Amsterdam, The Netherlands. Tel: +31 020 531 0000; Fax: +31 020 531 0031; E-mail: *info@globalreporting.org*; Web site: *www.globalreporting.org*. To register your sustainability report with GRI, contact: *www.globalreporting.org/GRIReports/RegisterYourReport/*.

Complimentary Compliance Calendar

Keeping track of all of your US federal regulatory deadlines can be a headache. Environmental Resource Center (ERC, an environmental, health, safety, and transportation consulting firm focused on compliance and training) has a remedy to help make compliance less painful, the Compliance Calendar. The free calendar lists regulatory recordkeeping, reporting, and notification deadlines for the US Environmental Protection Agency (EPA), US Department of Transportation (DOT), and US Occupational Safety and Health Administration (OSHA). ERC has recently released its 2008 calendar, and its 2007 calendar is still available as well. While clearly a marketing tool for ERC's compliance training programs, the calendar also contains a wealth of agency contact information, brief descriptions of key regulations, and handy regulatory tips — and hey — you can't beat the price.

The calendar is available for free download from the ERC Web site, or a free print version may be ordered via telephone or e-mail. ■

CONTACT: Environmental Resource Center, 101 Center Pointe Drive, Cary, NC 27513-5706 USA. Tel: +1 919 469 1585; Fax: +1 919 342 0807; E-mail: *service@ercweb.com*; Web site: *www.ercweb.com*.

Corporate Initiatives

Massachusetts Maritime Academy Goes Renewable

Massachusetts Maritime Academy is saving money and providing students with vital training in alternative energy. Engineering cadets can now minor in energy management, with courses that include renewable energy and energy strategies.

The Academy spent US $1.4 million to erect a 660-kilowatt (kW) wind turbine one year ago. Last year, it earned renewable energy credits (worth $57 per megawatt-hour) and saved the college $194,000. Next year, it is expected to save over $300,000. The study found that all but one osprey avoided the spinning blades.

The Academy has a machine that converts french fry oil to fuel, using a process called transesterification, in which vegetable oil is combined with an alcohol and a catalyst (lye) to create biodiesel and glycerol. Biodiesel is simple to use, non-toxic, and biodegradable. Its use cuts emissions of sulfur, carbon dioxide, and soot. The school uses 100% biofuel in all the demonstration diesel engines in engineering labs. Its ships and tugboats run on 20% biofuel. A 100% biofueled fuel cell is slated for a tugboat.

The Academy plans 81 kW of solar panels on a dormitory roof. They will provide enough energy for 400 students, and for all students on very bright days. With rising fuel costs, Academy officials are constantly examining new alternative energy programs, according to Admiral Richard Gurnon, Academy president.

Warren Leon, director of the Renewable Energy Trust at the Massachusetts Technology Collaborative, called the Academy true leaders in implementing alternative energy programs. "By doing things like the wind turbine, they can use those facilities to train students. There's a lot of interest across the whole college and university system, but [Massachusetts Maritime Academy] has been leading the way."

For more information, see *www.capecodonline.com/apps/pbcs.dll/article?AID=/20070524/NEWS/705240331*. ■

PG&E Joins the Green Grid

Pacific Gas and Electric (PG&E) has joined The Green Grid, a non-profit consortium of information technology companies and professionals seeking to improve energy efficiency in data centers around the globe. PG&E will include The Green Grid's efficiency standards in financial incentive programs for customers who purchase high-end efficiency servers, data storage devices, routers, and other computing equipment.

According to Brad Whitcomb, vice president of customer products and services for PG&E, "PG&E has developed an industry-leading portfolio of high-tech energy efficiency programs and services for our customers, and learning what constitutes premium efficiency for computing equipment will help us expand our offerings." He added, "We want to provide our customers with information and incentives for the most energy efficient high tech equipment on the market." Adds Mark Bramfitt, principal program manager for the high-tech sector at PG&E, "Our customers and the (computer) industry are asking us to expand our programs, and to promote them to other utilities. Having industry-accepted measurement protocols will form the basis of new programs, and we hope to complement The Green Grid's efforts with our knowledge and experience."

Don Tilton, a Director of The Green Grid, notes, "PG&E brings a highly-valued perspective … the utility's leadership and experience in developing innovative high-tech energy efficiency programs will enhance our efforts to improve overall data center efficiency. As more utilities join, we expect to collaborate on standardizing demand response and energy efficiency incentive and rebate programs across the industry to accelerate the adoption of technologies that support this goal."

The Green Grid is a consortium of over 40 high-tech equipment and related companies that take a broad approach to data center efficiency by focusing on data center "power pillars," including technology, infrastructure, and processes in current data center environments. The member companies include AMD, Cisco, Dell, EMC, Emerson, HP, IBM, Intel, Microsoft, Novel, Rackable Systems, SprayCool, Sun Microsystems, Symantec, Texas Instruments, VMware, and others. Members collaborate to develop meaningful, platform-neutral standards, measurement methods, processes, and new technologies in an effort to improve data center efficiency and performance. Additional information about The Green Grid can be found at *www.thegreengrid.org*.

PG&E offers a number of programs, services, and financial incentives to the high-tech sector, including:

- Virtualization projects: Incentives for customers who initiate IT virtualization projects in data centers that remove computing equipment.
- MAID Systems: Incentives for customers who use Massive Array of Idle Disks, or MAID systems, that store rarely used data to hard disks that are normally "off," thus helping customers realize at least 75% in energy savings vs. typical systems.
- Energy efficient servers: Financial incentives for customers who replace old, inefficient servers with new energy efficient ones.
- HVAC upgrades: Incentives for those IT projects that effectively reduce the amount of energy used to cool data centers.
- 80 PLUS power supplies: A US $5 incentive per unit to manufacturers who integrate power supplies rated at an efficiency of 80% or greater into desktop computers and servers.
- LCD monitors: A $10 incentive per unit to manufacturers of energy efficient monitors.
- "Sleep-mode" software: A $15 incentive per computer for enterprise customers who purchase software with a "sleep mode" when not in use.

PG&E customers interested in earning financial incentives for their data center efficiency measures can find more information about PG&E's programs at *www.pge.com/hightech*.

In February 2007, PG&E announced that it is spearheading a coalition of utilities nationwide focused on discussing and coordinating their efforts to capture the energy efficiency programs for the high tech sector, with added focus on the burgeoning data centers. Since data centers can consume up to 100 times the energy per square foot of a typical office space, the energy efficiency opportunities are enormous.

In related news, the US Environmental Protection Agency (EPA) released a report to the US Congress on 2 August 2007 assessing the opportunities for energy efficiency improvements for government and commercial computer servers and data centers in the United States. More information about the EPA report can be found at *www.energystar.gov/index.cfm?c=prod_development.server_efficiency*. (See also ***BATE*** Focus Report, August 2007, for more information on data center efficiency.) ■

CONTACT: PG&E News Department. Tel: +1 415 973 5930; Web site: *www.pge.com*.

Nissan Develops Smaller, Lighter Batteries for Hybrids and Electric Cars

Nissan CEO Carlos Ghosn said his company is working hard to develop the next generation of smaller, lighter auto batteries for electric and hybrid cars. At the same time, Nissan is pursuing all the options: hybrid, fuel cell, electric, diesel, biofuel.

Automakers are racing to develop viable lithium ion batteries, which are common in gadgets like laptops and cell phones, but are not yet fully adapted to the rigorous demands of a car engine. "We continue [work] on the lithium ion battery. We think for us it's a competitive advantage," said Ghosn. Nissan recently opened a new tech center in Japan to develop environmentally friendly technologies. Nissan last year introduced a hybrid vehicle with nickel-metal hydride batteries, licensed from Toyota. Ghosn believes Nissan's investment may put it ahead of competitors down the road.

Nissan is serious about introducing pure-electric vehicles. Electric cars have been expensive, difficult to recharge, and limited in range. Still, several automakers are trying to develop them for the mass market. Nissan is negotiating to put hundreds of electric cars in Japan, in cooperation with local governments. They would provide necessary infrastructure, such as charging stations.

Meanwhile, Nissan and Renault are studying a US $3,000 car for India's market. Indian automaker Tata Motors Ltd. has announced plans to make a $2,500 car in India. Such cheap cars could have a potential even bigger than India. If Nissan and Renault decide to produce the $3,000 car, they will make one version for Nissan and another for Renault. ■

For more information, see *http://abcnews.go.com/Business/wireStory?id=3321013*.

Climate and Computers

Intel Corporation and Google, Inc. have joined with over 25 other organizations to launch the Climate Savers Computing Initiative. Modeled on the WWF's Climate Savers program, the new initiative's goal is to promote development, deployment, and adoption of smart technologies that can both improve the efficiency of a computer's power delivery and reduce the energy consumed when the computer is in an inactive state.

Computer and component manufacturers commit to producing products that initially meet or surpass the EPA's Energy Star guidelines. Requirements increase over the years to a minimum of 90% minimum efficiency by 2010. Corporate participants commit to purchasing power-efficient computing products.

More about the power management of computers can be learned through the initiative's Web site. Through use of such strategies, such as sleep and hibernate modes, the electrical footprint of computers can be reduced by up to 60% without any loss of productivity. For a list of initial supporters and other details, see *www.climatesaverscomputing.org/program/index.html*.

HP, one of the members of the Climate Savers Computing Initiative, has joined with WWF to establish three projects addressing the causes and consequences of climate change on a global basis. HP will allocate both US $2 million cash and HP equipment to support:

- The Epicenter for Climate Conservation, targeting adaptation and resiliency strategies;
- Climate Witness, an online forum to raise awareness of the consequences of climate change; and
- Information and Communication Technology Innovation as a Driver of Climate Change Solutions.

For more information, see *www.hp.com/hpinfo/newsroom/press/2007/070523c.html*. ■

US Leads the World in Wind Power Growth

US wind power capacity rose by 27% in 2006. The United States led the world in added capacity for 2005 and 2006, according to the US Department of Energy's (DOE's) first *Annual Report on US Wind Power Installation, Cost, and Performance Trends*.

More than 60% of the total US wind capacity, over 7,300 megawatts (MW), has been installed since 2000. "Wind power is one of the most important, emissions-free sources of energy being deployed to address climate change and improve our energy security," said DOE Assistant Secretary for Energy Efficiency and Renewable Energy, Alexander Karsner.

The DOE report says wind power has consistently been priced at or below the average price of electricity from coal, nuclear power, or natural gas. However, the cost of turbines has risen since 2002, driving the cost of wind power up. Wind project performance has risen sharply over the last several years, DOE said, driven by improved project siting and technological advancements.

In 2006, the United States installed 2,454 MW of wind power capacity, enough to power all of the homes in Philadelphia, Pennsylvania. The United States was roughly 16% of the worldwide wind market, followed by Germany, India, Spain, and China.

For details, see *www.energy.gov/pricestrends/5091.htm*. ■

Is Sustainable Attainable?

Perhaps it should come as no surprise that China, home to some of the most polluted cities in the world, has embarked on a remarkable experiment to build an eco-city. Dongtan (China) is being built on an island in the Yangtze River just a short distance from Shanghai (China), a city of over 18 million people.

The ambitious goals for Dongtan are to be environmentally responsible and carbon neutral through the use of renewable energy sources, wastewater recycling, sustainable local farming, energy efficient buildings, a ban on gasoline- and diesel-powered cars, and abundant vegetation. Adjacent wetlands will remain intact. With an area of 86 square kilometers (33 square miles), Dongtan is expected to have 500,000 residents when it is completed in 2050. The anticipated development cost is US $1.3 billion. The first phase of development in Dongtan, including 20,000 residents, is expected to be completed by 2010, in time for the World Expo in Shanghai.

Shanghai Industrial Investment Corporation (SIIC), Dongtan's state-run developer, has contracted with Arup (*www.arup.com*), a global design firm with offices in 37 countries, to develop the city's master plan. Arup, based in London (UK), strongly emphasizes its commitment and expertise in sustainable development. Peter Head, Director, said, "Arup is delighted to be working with SIIC on such an ambitious development that could well prove to be the template for sustainability in city planning — not only in China, but elsewhere in the world."

Interestingly, neither SIIC nor Arup see Dongtan pioneering new technology. Instead, the uniqueness of the city is found in the combination of so many technologies for sustainability applied together. This should provide opportunities for many companies to contribute to the development, while minimizing the risks associated with unproven products.

Energy generation will come from wind, sun, biofuels, or recycled organic waste. In addition to some of the familiar technologies for energy conservation, Arup plans building heights of three to eight stories. This optimizes delivery of services, such as water and heat. It also allows automatic louvers to be used on windows to block sunlight in the summer and allow sunlight in the winter. Very tall buildings experience high winds that can damage louvers. Vegetation on the rooftops could provide insulation, while removing carbon dioxide.

Skeptics question if Dongtan is a serious effort to improve the environment or simply a well-publicized showcase. In fact, BBC News reported in July 2007 that, while planning had progressed well, authorization of development funds had been stalled. Regardless of the timing or even the ultimate level of sustainability, the deployment and integration of diverse environmental technologies in Dongtan will likely advance environmental performance in urban development.

For more information, see *http://news.bbc.co.uk/2/hi/business/6756289.stm*; *www.arup.com/arup/newsitem.cfm?pageid=7009*; and *www.spectrum.ieee.org/jun07/5128*. ■

20th World Energy Congress

Save the date: 11–15 November 2007 at the Nuova Fiera di Roma (Italy), the World Energy Council will host the 20th World Energy Congress with the theme, "The Energy Future in an Interdependent World." The World Energy Congress (WEC), held once every three years, is the foremost international energy meeting, and brings together a diversified group of experts within the international energy field, as well as key policy and business decision makers and research scientists.

In a joint statement, the *Financial Times* (FT) announced that it has established a partnership with the World Energy Council and Micromegas to promote the WEC. Gerald Doucet, Secretary General of World Energy Council, stated, "I am very delighted to work with a leading business media partner like the FT on the promotion of our congress. I am convinced that all partners will hugely benefit from this cooperation."

Ben Hughes, Global Commercial Director of the *Financial Times*, stated, "The *Financial Times*, one of the primary news sources for the global energy industry, is delighted to be sponsoring the 2007 [WEC]. The energy sector is of huge importance to the global business community, reflected by the volume of award-winning editorial coverage on this subject that the FT produces daily, both in print and on-line." Erminio Fragassa, Chairman and CEO of Micromegas Comunicazione, added, "As a Europe-wide leading company in the organization of important events we feel greatly honored to have been chosen as the sole organizer of the congress and to be privileged to cooperate with such prestigious and distinguished partners as the World Energy Council and the *Financial Times*."

The WEC will feature discussions dealing with the Politics and Economics of Sustainable Energy, Climate Change Challenges, Renewables for Achieving Sustainable Development, Sustainable Energy Policies, Global Environmental Concerns From the DC Perspective, Energy Efficiency — The Way Forward, Developing a Common Environmental Vision, and [The] Business Case for Going Green.

For additional information, see *www.rome2007.it*. ■

CONTACTS: Stephan Albrechtskirchinger, Director Communications, World Energy Council. Tel: +44 (0) 20 7734 5996; E-mail: *albrechtskirchinger@worldenergy.org*.

Erminia Fragassa, Micromegas Comunicazione S.p.A. Tel: +39 06 33399331; E-mail: *erminio.fragassa@micromegas.it*.

Jo Crosby, Communications Manager, *Financial Times*. Tel: +44 (0) 20 7873 3811; E-mail: *jo.crosby@ft.com*.

Product Stewardship and Takeback

Holiday Cards That Save Trees

Holiday cards have become not only a personal tradition, but a traditional way to express appreciation for business contacts, such as clients, customers, contractors, and prospects. But how can one both honor tradition and yet stay ever "green"? Two products currently available may help to achieve both goals.

For those who really want to walk the talk — as well as reduce the time spent in holiday card preparation and money spent for postage — WriteExpress offers a CD of holiday e-mail templates. No stamps to lick, no envelopes to seal — and you can easily send hundreds at a time, even delivering to each individual within a company. The software includes a variety of templates appropriate for business (and personal) use, plus the ability to add company pictures or logos. In addition, the package offers 250 kilobytes of free Web space, so that inboxes aren't clogged by the attached images. "High Impact e-mail, Holiday Edition," is available from WriteExpress for around US $25. Unfortunately, it does not currently support the Windows Vista platform.

A more traditional, yet still environmentally responsible, choice is a line of Forest Stewardship Council (FSC) certified cards manufactured by National Envelope. The FSC line offers a selection of nine holiday designs and two standard greetings. Further personalization is available by adding your business name, logo, and/or a selection of seasonal verses. Two finishes are available: a soft "felt" texture, or a crisp, glossy surface. The cards are reproduced on FSC certified paper, and entirely manufactured within the FSC chain-of-custody system. All of the cards prominently display the FSC logo on the back; the glossy cards are further endorsed by the Rainforest Alliance. National Envelope's FSC certified cards are available through Hammond Greetings. ■

CONTACT: WriteExpress Corporation, 1248 West 1400 North, Provo, Utah 84604, USA. Tel: +1 801 374 1188; Fax: +1 801 374 6888; Web site: *www.writeexpress.com/or/hih/holiday-email.htm*.

Rick Huntoon, Vice President of Marketing, National Envelope, 3211 Internet Blvd., Suite 200, Frisco, TX 75034, USA. Tel: +1 972 731 1100; Fax: +1 972 731 1127; E-mail: *rhuntoon@natenv.com*; Web site: *www.nationalenvelope.com*.

Hammond Greetings, 147 West Election Road, Suite 200, Draper, UT 84020, USA. Tel: +1 888 553 2590; Fax: +1 801 619 8633; E-mail: *sales@hammond.com*; Web site: *www.hammond.com/FSC-Cards/FSC-Cards.aspx*.

Federal Electronics Challenge

According to 2007 statistics from the US Office of Management and Budget, the US government purchases more than US $63 billion worth of electronic equipment and services annually. The Federal Electronics Challenge (FEC) is a voluntary partnership of federal facilities and agencies aimed at providing leadership in the environmentally sound and cost effective management of these electronic assets.

FEC has developed two checklists for evaluating and selecting an electronics recycling service. While developed for government agencies, the checklists are useful for finding the recycler best suited for the individual needs of any size business, in any sector. The "Checklist for the Selection of Electronic Recycling Services" provides a list of questions suitable for interviewing potential recyclers, either in person or by telephone. It may be used to evaluate prospective haulers, repair shops, electronic demanufacturers, and asset recovery operations. For a more in-depth, on-site evaluation, FEC has developed "Guidelines for On-Site Reviews of Electronics Recyclers." This document has tips and guidelines to aid in an on-site review, a sample worksheet/questionnaire, and a sample confidentiality notice. In addition to these practical resources for finding help with electronics' end-of-life management, the FEC also provides guidance on acquisition and procurement, operations and maintenance, plus an environmental benefits calculator to evaluate stewardship programs over the life of electronics products.

CONTACT: Federal Electronics Challenge. E-mail: *info@electronicschallenge.net*;
Web site: *www.federalelectronicschallenge.net*.

ISO 14000 Update

The EMAS Standards Could Become Mandatory Once Revised

A majority of stakeholders queried by the European Commission as part of the Commission's plans to revise the European Union's (EU's) Eco-Management and Audit Scheme (EMAS) want to see a beefed-up EMAS; that is, they are clamoring for EMAS to become mandatory for some public sector bodies, big corporate polluters, and those organizations receiving EU funds for their existence. The Commission, upon review of the responses received, stated that it is in favor of mandatory registration, in some circumstances, but is not in favor of a blanket requirement for specific sectors, as the stakeholders have recommended.

Among the proposals that were at the top of the stakeholders' list were strengthening existing requirements, the establishment of mandatory key performance indicators for EMAS-registered organizations, and stronger legal compliance requirements. According to the stakeholders, such changes would help bolster EMAS' profile.

Stakeholders also backed proposals dealing with stronger links between EMAS and related EU and Member States' legislation and regulations, such as less stringent integrated pollution control rules for those companies that are EMAS-registered. To help move the proposals forward, most of the stakeholders also stated that Member States should provide additional financial and fiscal incentives.

The Commission's intent in revising the standard is to make EMAS easier to understand, and to cut down on the bureaucratic red tape to register a company to EMAS, as a marketing move to better compete with its main competitor, ISO 14001.

On 26–27 June 2007, in Warsaw, Poland, the Commission convened a meeting to discuss revising the standard. Following that meeting, ENDS *Report* DAILY issued a statement that the European Commission is planning to publish revised rules for EMAS in mid-autumn 2007. Member States queried are in favor of the Commission's outline of the revision plans. The Warsaw meeting also discussed best practice measures for helping promote EMAS.

Additional information about the proposed revisions to EMAS can be found at: *http://ec.europa.eu/index_en.htm*; *http://ec.europa.eu/environment/emas/index_en.htm*; and *http://ec.europa.eu/environment/emas/news/index_en.htm#170*. ■

Climate Change Update

Gore Co-Recipient of Nobel Prize for Climate Change Work

Former US Vice President Al Gore, rising from the ashes of a heavily contested 2000 presidential election in which he won the popular vote, but ultimately lost the election to George Bush, can now lay claim to one of the greatest honors to be bestowed on a human being. He was awarded the 2007 Nobel Peace Prize, along with the United Nations' Intergovernmental Panel on Climate Change (IPCC) (*www.ipcc.ch*), a network of scientists working on the issue of climate change. The Norwegian Nobel Committee praised both parties "… for their efforts to build up and disseminate greater knowledge about man-made climate change."

Following his defeat in 2000, Gore has devoted his energies to being an environmental crusader. His film, "An Inconvenient Truth," which depicted graphic examples of what climate change can do, won an Academy Award earlier this year. In spite of that award, many US conservatives denounced the film as alarmist and exaggerated.

The Nobel was also a vindication for the IPCC, which has been looked at skeptically by those who dispute the scientific case for humans being a causal factor in climate change. Rajendra K. Pachuri, the Indian climatologist who heads the IPCC, added that science had now won out over skepticism.

Gore, accompanied by his wife and four members of the IPCC, said, "I will accept this award on behalf of all the people that have been working so long and so hard to try to get the message out about this planetary emergency." He then added, "I'm going back to work right now."

Ole Danbolt Mjoes, chairman of the Nobel peace prize committee, was asked whether Gore's award could be viewed as a criticism of the Bush Administration, due to the United State's failure to sign the Kyoto Protocol. His response was that the Nobel was not intended to be a "kick in the leg to anyone." Rather, Mjoes said, "We would encourage all countries, including the big countries, and challenge them to think again and to say what they can do to conquer global warming." Another member of the peace prize committee, Berge Furre, said, "I hope this will have an effect on the attitudes of Americans as well as people in other countries."

In its formal citation, the Nobel committee lauded Gore as "probably the single individual who has done [the] most to create greater worldwide understanding of the measures that need to be adopted." The committee also praised the IPCC, comprising about 2000 scientists, for nurturing "an ever-broader informed consensus about the connection between human activities and global warming."

While the world's major environmental groups all praised Gore for playing a significant role in raising pubic awareness about the issue, they praised the IPCC for "meticulous scientific work." The Norwegian Nobel Committee added in its citation that the IPCC and Gore had focused "on the processes and decisions that appear to be necessary to protect the world's future climate, and thereby reduce the future threat to the security of mankind. Action is necessary now, before climate change moves beyond man's control."

For more information, see *http://query.nytimes.com/gst/fullpage.html?res=9A07EFDC1430F930A25753C1A9619C8B63*. ■

UN Chief Says We May Be Too Late on Global Warming

On 24 September 2007, a reporter told United Nations (UN) Secretary General Ban Ki-Moon, "Some scientists are writing books and saying in public that they believe this crisis is so serious that if humanity goes on with business as usual, it could seriously lead to the collapse of civilization, even in the lifetime of today's children." Ban replied, "I think this is a correct assessment. People say that action should have been taken yesterday. If we take action today, it may not be too late. The science has made it quite clear. The impact has been felt seriously around the world. Now only lacking largely is a political will," said Ban. "As a human being, a whole international community is standing at the very critically important juncture. Whether or not we address this issue properly and collectively, the whole future of our generation and planet Earth will depend on." Global warming will be a priority of his tenure at the United Nations. He deems it a matter of the greatest gravity.

Ban worked hard to convene a UN meeting with the largest group of heads of state and government ever held to debate the problem of global warming. Notably absent at the all-day meeting was US President George Bush.

Bush did, however, meet in a closed-door dinner with Ban after the meeting, along with other stakeholders. Ban sought a candid and frank exchange of views. He hoped it would lead to taking responsibility for future generations and planet Earth.

The United States was long been the biggest emitter of greenhouse gases, but China surpassed US emissions in 2006, fueled by a boom in coal-fired power plants. The Chinese will not impose strict carbon emission caps on themselves until the United States takes the lead. The UN chief agrees; the United States must set the example if humanity is to have any chance of controlling the problem: "I need American leadership … [the] United States and other industrialized countries should demonstrate their political leadership, a historical leadership. … They are the greatest emitters, which have been making these problems. They should feel more responsibility on this."

For more information, see *http://abcnews.go.com/Technology/GlobalWarming/story?id=3645491&page=1*. ■

Curtains for Incandescent Light Bulbs?

Over the last two years, ***BATE*** has reported plans or actual programs to phase out incandescent light bulbs in Cuba, Venezuela, Brazil, Australia, Canada, New Zealand, and the European Union. Greenpeace has asked India to follow Australia's lead. Similar proposals have been filed in several US states. Wal-Mart surpassed its goal of selling 100 million compact fluorescent bulbs in the United States in 2007 with one quarter of the year left. Home Depot plans to phase out incandescent bulbs by 2011.

Now China, which makes 70% of the world's light bulbs, has agreed to phase out incandescent bulbs over 10 years. The switch could eliminate 500 million tons of carbon dioxide (CO_2) emissions each year, 2% of the world's total. China is the first developing country to agree to join this program, said Monique Barbut, chief executive officer of the Global Environment Facility, which will invest about US $25 million in the program. Countries such as Mexico, Indonesia, and Costa Rica may join soon.

Meanwhile, US Democratic Presidential candidate Barack Obama proposed phasing out incandescent light bulbs in the United States by 2014. He says this would save $6 billion of electricity per year, about 88 billion kilowatt-hours (kWh). By 2030, he says this would cut emissions by nearly 28 million tons of CO_2 per year, the equivalent of 80 coal-fired power plants. Obama's figures are very conservative; the savings may be more on the order of 250 billion kWh, worth $25 billion per year, representing more than 600 million tons of CO_2 emissions per year, another 2% of the world's total.

Other Democratic Presidential candidates also view the idea of phasing out incandescent lights favorably. While only 41% of Republicans support a legislative mandate, 65% of Democrats do. A recent ABC News poll found that 7 out of 10 Americans say they use at least one compact fluorescent light bulb in their homes.

For more information, see *www.indianpad.com/story/116378*; *www.environmentalleader.com/2007/10/03/chin*; and *blogs.abcnews.com/politicalradar/2007/10/obama-on-light-.html*. ■

Lieberman-Warner Climate Bill Hits the Senate

The US Senate prepared in mid-October 2007 for renewed debate on climate change. Virginia Republican John Warner and Connecticut Independent Democrat Joe Lieberman introduced a bill to cap US greenhouse gas (GHG) emissions by 2012, then cut them 10% by 2020 (to 1990 levels) and 70% by 2050. Warner, who for many years was chairman of the Senate Armed Services Committee, supports emission caps because he sees climate change as a threat to US national security.

The bill creates a market for emission allowances. Firms that can cut emissions below the cap could sell a right to emit additional carbon dioxide (CO_2) to firms that can't or don't want to make cuts. The US Clean Air Act has successfully used a similar cap-and-trade system to reduce US sulfur emissions by two-thirds. Clean-up costs were much lower than industry predicted.

"This is a huge shift in Congress' center of gravity on global warming," said Philip Clapp, president of the National Environmental Trust. The bill "takes the debate where it needs to go: away from the president's voluntary approach," he said. In late September 2007, the Bush Administration finally began negotiations with 15 nations to set voluntary goals to cut GHG emissions. Even Bush and US Secretary of State Condoleezza Rice have finally acknowledged that climate change is a problem.

The America's Climate Security Act invests set-aside emissions credits and money raised by the auction of such allowances in advancing several public policies, including:

- Deploying advanced technologies and practices for reducing emissions;
- Protecting low- and middle-income families from higher energy costs; and
- Mitigating the negative impacts of any unavoidable global warming on low- and middle-income families and on wildlife.

Lieberman and Warner presented their new bill as the core of a new federal program that Congress should pass to avert potentially catastrophic global climate change while enhancing US energy security. "This is the year for Congress to move this critical legislation," said Lieberman. "If we fail to start substantially reducing GHG emissions in the next couple of years, we risk bequeathing a diminished world to our grandchildren."

Eileen Claussen, President, Pew Center on Global Climate Change, said she believed the bill has a "very real" chance of passage. "This is the breakthrough we have been waiting for," said Claussen in a statement. She praised Lieberman and Warner for demonstrating what she termed "a clear commitment for meeting critical objectives of the business and environmental communities while bringing together their colleagues on both sides of the aisle."

The White House intends to review the Lieberman-Warner bill and other proposals to reduce GHG emissions. "The President has a clear policy on dealing with climate change. He's focused on what we can do domestically, both for climate change and for energy security," noted White House Principal Deputy Press Secretary Tony Fratto on 22 October.

Bush has proposed the "20-in-10" plan aimed at reducing the projected consumption of gasoline by 20% in 10 years. He remains opposed to mandatory limits on GHG emissions and does not support higher taxes to fund new technologies.

One of the frequently mentioned mechanisms for raising revenue is a carbon tax. The Administration's assessment of any measure to lower carbon emissions must take into account its economic consequences, noted a White House spokeswoman.

Portions of the above article provided by CCH Washington Bureau, October 2007. For more information, see *content.hamptonroads.com/story.cfm?story=135014&ran=95106* and *www.ucsusa.org/news/press_release/warner-lieberman-climate-bill-0053.html*. ■

Oceans Are Soaking Up Much Less Carbon

Research announced in late October 2007 shows that the world's oceans are soaking up less carbon dioxide (CO_2). The 10-year study by researchers from the University of East Anglia (Britain) shows that the uptake of CO_2 by the North Atlantic ocean fell by half from the mid-1990s to 2002–2005.

"Such large changes are a tremendous surprise," said Dr. Ute Schuster, who is publishing the findings with professor Andrew Watson in the *Journal of Geophysical Research* in November 2007. "We expected that the uptake would change only slowly because of the ocean's great mass."

There is also evidence of a slowdown in the uptake of CO_2 by the southern (Antarctic) ocean, although it is not as great or as sudden as in the North Atlantic. This confirms and extends previous studies about CO_2 uptake there.

The scientists based their findings on data collected by merchant ships fitted with equipment to automatically measure the levels of CO_2 in the water. One ship that sailed between Britain and the West Indies made more than 90,000 measurements in recent years.

The oceans are one of two major carbon sinks for CO_2 emissions. The other is the biosphere on land, principally soils and forests. Together, oceans and land absorb half of all CO_2 emitted. If the oceans sequester less CO_2, it means atmospheric CO_2 levels will rise faster, potentially accelerating climate change. In time, the ocean might become saturated with CO_2.

"The speed and size of the change show that we cannot take for granted the ocean sink for the CO_2," said Watson. "Perhaps this is partly a natural oscillation or perhaps it is a response to the recent rapid climate warming. In either case we now know that the sink can change quickly and we need to continue to monitor the ocean uptake."

For more details, see *news.scotsman.com/latest.cfm?id=1677562007* and *news.bbc.co.uk/2/hi/uk_news/7053903.stm*. ■

Bellcomb Becomes Carbon-Neutral

As of 1 June 2007, Bellcomb Technologies, Inc. of Minneapolis, Minnesota (USA) has officially become carbon neutral. The mid-sized manufacturer devised a strategy in partnership with Carbonfund.org to reduce and offset its carbon footprint, which annually runs about 974 tons of greenhouse gas emissions.

Established in 1989, Bellcomb is an international leader in the production of composite panels used for commercial and industrial applications. President David Hartwell led the way in the company's commitment to becoming more "green." "Our company is taking responsibility for the effects of our carbon dioxide emissions while working hard to reduce them. This year we will offset the carbon emissions we are not able to eliminate by purchasing offset credits. We believe that all businesses, industries and communities should bear responsibility to minimize environmental effects and pollution."

Carbonfund.org is a non-profit organization whose slogan is to "Reduce what you can, Offset what you can't." The Web site offers individuals and companies a carbon calculator to estimate their annual carbon emissions. The site offers ideas for reducing emissions, and then provides an opportunity to purchase offsets. The offset projects available through Carbonfund.org are renewable energy, energy efficiency, and reforestation efforts. The goal of Carbonfund.org is to make climate protection a way of life, easy for everyone.

For more information, see *www.world-wire.com/news/0709130001.html* and *www.carbonfund.org/site/pages/our_projects/*. ■

News Corporation to Be Carbon Neutral by 2010

Media conglomerate News Corporation plans to be carbon neutral across all of its businesses by 2010, Chief Executive Rupert Murdoch has announced. "Climate change poses clear catastrophic threats," Murdoch said. "We might not agree on extent, but we certainly can't afford the risk of inaction." Early steps include switching to energy-efficient light bulbs at its newspaper offices and using solar-powered golf carts on the 20th Century Fox movie studio lots. For more details, see *http://abcnews.go.com/Business/GlobalWarming/story?id=3157185&page=1*. ■