

# Energy & Environmental Export News

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## Secretary of Commerce Hosts Briefing on New Presidential Climate Change Initiative

By Frank Caliva



President Bush addresses the Major Economies Meeting on Climate Change and Energy Security in Washington, D.C., on September 28, 2007. (White House photo)

In May 2007, President George W. Bush announced a new effort to develop an international framework on climate change, energy security, and economic growth.

On September 19, 2007, Secretary of Commerce Carlos M. Gutierrez and Environmental Protection Agency Administrator Stephen L. Johnson, along with other senior U.S. government officials, held a briefing for the business and non-governmental organization (NGO) communities on President Bush's new climate change initiative. At the briefing, Jim Connaughton, chairman of the Council of Environmental Quality, and Dan Price, deputy national security adviser for international economic affairs, spoke to the audience about the Major Economies Meeting (MEM) on Climate Change and Energy Security.

Also during the briefing, Gutierrez explained that industry would have a crucial role in the new climate change process, particularly through the development and deployment of clean energy technology. The secretary noted that U.S. clean and renewable energy exports nearly doubled between 2002 and 2006 and that U.S. exports of environmental technologies increased 55 percent during the same period. That tremendous growth is expected only to continue.

MEM was held on September 27 and 28, 2007, in Washington, D.C., and was arranged by Secretary of State Condoleezza Rice. The meeting brought together high-level representatives from the top global greenhouse gas-emitting economies, including Australia, Brazil,

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# Spotlight on the U.S. Solar Industry

By Brian Hanlon

The U.S. solar industry is growing at a phenomenal rate. According to the Solar Energy Industry Association, installation of photovoltaic cells in the United States grew by 20 percent in 2006. This growth is remarkable because the solar industry is currently constrained by a shortfall in polysilicon, which is the primary material in solar cell manufacturing. However, the ability to produce polysilicon is growing in the United States and elsewhere. This new production capacity should ease the strains on the polysilicon supply by 2008, which will allow the industry to grow even more.

The Office of Energy and Environmental Industries (OEEI) of the U.S. Department of Commerce seeks to strengthen the competitiveness of the U.S. solar industry in domestic and international markets. To further this goal, OEEI will do the following:

1. Provide key information and analysis of the sector to senior policy-makers and staff members to ensure that the interests of the industry are taken into account during the formulation of economic and trade policy.

2. Integrate the solar energy industry into the Department of Commerce's work plan on renewable energy. In May 2007, renewable energy leaders, including representatives from the U.S. solar industry, discussed key policy interests with Franklin Lavin, then under secretary for international trade. In August 2007, OEEI Director Joe Neuhoff met with 65 members of the Hawaii Energy Policy Forum to discuss the advancement of renewable energy in that state. The Department of Commerce also



BP Solar hosts OEEI at its Frederick, Maryland, headquarters. (U.S. Department of Commerce photo)

plays a leading role on key presidential initiatives, including President George W. Bush's Major Economies Meeting on Climate Change and Energy Security and the Washington International Renewable Energy Conference.

3. Continue to play an active role in the Asia-Pacific Partnership (APP) for Clean Development and Climate. The U.S. APP team has partnered with industry leaders from Australia, China, India, Japan, and South Korea to speed up the market adoption of renewable energy projects, especially in China and India.

4. Leverage U.S. bilateral and multilateral initiatives to support solar energy. Miasolé and Applied Materials, two U.S. manufacturers of solar cell technology, participated in the April 2007 clean energy technologies trade mission to India and China led by David Bohigian, assistant secretary for market access and compliance. The mission was part of the Asia-Pacific Partnership on Clean Development and Climate. A second clean energy trade mission to Beijing, Guangzhou, and Hong Kong in China and to Calcutta and Bangalore in India is scheduled for January 2008.

On September 5, 2007, U.S.-based BP Solar invited OEEI staff members to its headquarters and solar cell manufacturing plant in Frederick, Maryland. OEEI and BP Solar representatives discussed the effects of the expanding U.S. solar market on the creation of U.S. jobs, as well as the competitiveness of U.S. and global solar markets, the problems with supply chains, and the manufacturing lifecycle of polysilicon solar cells. In 2006, BP Solar doubled its manufacturing capacity from 100 megawatts (MW) to 200 MW by expanding its plants in Frederick, Maryland; Bangalore, India; and Madrid, Spain. The manufacturing facility in Maryland provides approximately 600 jobs for the local economy, and about 60 percent of its output is exported.

For more information on the global competitiveness of the U.S. solar and other renewable energy industries, please contact Brian Hanlon of OEEI at (202) 482-3492 or [brian.hanlon@mail.doc.gov](mailto:brian.hanlon@mail.doc.gov).

# OEEI Support of United Nations Commission on Sustainable Development Energy Cycle

By Sarah Lopp

Office of Energy and Environmental Industries (OEEI) staff members were detailed to the U.S. Department of State's Bureau of Oceans and International Environmental and Scientific Affairs for four months (January–May) to support the negotiations and conclusion of the two-year “energy cycle” of the 15th Session of the United Nations (UN) Commission on Sustainable Development (CSD-15). The staff members ensured private-sector involvement and input into the energy cycle by organizing industry briefings; by acting as liaisons with industry officials in Washington, D.C., and New York City; and by organizing an official government–industry energy efficiency event at the United Nations.

CSD-15 was held on May 1–11, 2007. The energy cycle was divided into two years. The first year (2006), which was labeled the 14th Session of the Commission on Sustainable Development, reviewed and identified constraints and obstacles to improving access to reliable, affordable, and clean energy. The goal of CSD-15 was to make policy decisions on practical measures to expedite implementation and to deliver on-the-ground energy access improvements.

The United States has been working with the private sector, non-governmental organizations, other governments, and multilateral organizations during the energy cycle to improve access to modern, clean, and efficient energy services. OEEI staff members worked to augment the private sector's involvement in the cycle. Partnerships are

one of main means through which the United States seeks to achieve concrete results. For example, energy partnerships have provided 13 million people with access to energy.

The U.S. approach to delivering results during and beyond the energy cycle has three core phases: solutions, results, and next steps. The solutions phase identifies and shares practical and proven programs and incentives that have improved energy access to individuals. The results phase measures and reports the influence of particular programs and incentives. The next steps are to replicate and scale up those programs that delivered the best results.

Members of CSD-15 reviewed international energy policy and attempted to agree on a policy roadmap for how the international community should address the need to increase the supply of electric power in a dependable, affordable, and environmentally responsible manner without hampering economic development. Efforts to produce a negotiated policy document failed primarily because of the inability of key political blocs to resolve contentious issues, such as the future of fossil fuels, nuclear energy, and climate change.

Although no negotiated policy document was produced from CSD-15, the United States considers it successful because it brought about, largely through public- and private-sector partnerships, concrete actions and results. Those outcomes continue to increase the supply of clean, affordable, and reliable energy

by opening markets and by promoting economic development and trade.

OEEI continues to work with the energy and environmental industries, along with interagency counterparts, on the international dialogue on electric power and economic development. It stresses the need for private-sector involvement and measurable on-the-ground results over rhetoric or lengthy, non-binding negotiated documents.

CSD, a functional commission of the UN Economic and Social Council, is primarily charged with ensuring effective follow-up to the 2002 World Summit on Sustainable Development. CSD meetings take place at the UN headquarters in New York City. The CSD has been meeting annually since 1992. The 16th session will focus on agriculture, rural development, land, drought, desertification, and Africa. It will take place on May 5–16, 2008, at the UN headquarters.

For more information on OEEI contributions to the CSD, please contact Sarah Lopp of OEEI at (202) 482-3851; e-mail: [sarah.lopp@mail.doc.gov](mailto:sarah.lopp@mail.doc.gov).

# Spotlight on Environmental Monitoring and Analytical Instrumentation

By Todd Delelle

The environmental monitoring and analytical instrumentation industry represents a small, but critical, segment of the U.S. environmental technologies industry. That equipment is used to detect and quantify the presence of hazardous materials in air, soil, water, and biological tissue samples. Because the collection of accurate data is essential to sensible decision-making, the industry remains indispensable in creating regulatory policy and business decisions. In the future, the push to address climate change and to tighten environmental regulations in developed and developing countries should contribute to modest, consistent growth in the sector.

Environmental Business International Inc. (EBI) estimated that the U.S. environmental monitoring and analytical instrumentation manufacturing industry generated \$3.1 billion in sales of lab, portable, field, inline, and process instrumentation for environmental applications in 2006. The largest U.S. companies in the sector are Applied Biosystems Group, Thermo Electron (now Thermo Fisher Scientific), and Agilent Technologies. EBI also calculated that those companies chalked up more than \$1 billion in sales in 2005, with other relatively large companies such as Waters Corporation and Perkin Elmer following closely behind. Industrial facilities and other pollution generators are regarded as the largest group of purchasers of this equipment, which is used to ensure that emissions are within permissible levels. National, state, and municipal regulatory

agencies, as well as other government labs, also purchase a substantial amount of this equipment. U.S. government environmental testing work is often contracted out to the commercial environmental services industry, limiting government demand.

National security policies are rapidly developing another segment of domestic demand for environmental monitoring and analytical instrumentation. Terrorism concerns have increased the demand for continuous, real-time monitoring of the environment to detect intentional contamination of natural resources with hazardous substances. Some concern exists within the industry, however, that this demand could divert government resources away from more traditional environmental monitoring projects, such as those related to the remediation of polluted sites. Those remediation projects represent the very foundation of the industry. U.S. environmental monitoring and analytical instrumentation companies say that the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (commonly known as Superfund) gave birth to the industry.

The domestic market for environmental monitoring and analytical instrumentation remains the largest in the world, and U.S. industry retains a comfortable position in it. EBI data suggest a \$1 billion trade surplus in 2004, continuing a long trend. Those data also indicate that this particular U.S. industry generates more than half of its sales from exports. According to Strategic Directions Inter-

national Inc., foreign markets represent an estimated 55–60 percent of the \$4.9 billion total global market for environmental monitoring and analytical instrumentation equipment.

The U.S. industry has done well in exploiting opportunities in foreign markets, primarily competing for business with German, Japanese, and U.K. firms. The global demand for environmental monitoring equipment and analytical instrumentation is largely driven by regulatory guidelines in developed countries, which are increasingly stringent and comprehensive. Foreign carbon-trading schemes have also required more widespread and accurate greenhouse gas monitoring. The other segment of demand comes from the developing world, where rapid industrial and infrastructure development has often come at the price of environmental degradation. The Chinese and Indian markets, for instance, are relatively small but are growing rapidly.

Because such a large portion of future demand resides outside the United States, the industry is quite active in addressing policies and other barriers that inhibit its competitiveness in foreign markets. Many major instrumentation companies have production operations overseas, which are used to reign in production and to bolster presence in foreign markets. In addition to using foreign manufacturing facilities, environmental monitoring and analytical instrumentation firms are increasingly developing links with foreign firms and

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## Climate Change Initiative

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Canada, China, the European Union, France, Germany, India, Indonesia, Japan, Mexico, Russia, South Africa, South Korea, the United Kingdom, and the United States. Also present was a delegation from the European Commission and the United Nations (UN).

The delegates collaborated on developing a new global framework on climate change by the end of 2008. That framework would contribute to a global agreement under the UN Framework Convention on Climate Change by 2009.

In addition to the government-to-government discussions at the MEM, delegates met with private-sector and NGO representatives to discuss technology developments that can significantly enhance energy efficiency and energy security, while reducing greenhouse gas emissions, in four key sectors: (a) low-carbon power generation, (b) vehicle

and fuel technology, (c) land use with forestry and agriculture, and (d) efficiency of buildings and appliances.

Building on the September meetings, the Department Commerce is organizing a slate of activities within the new framework, including a series of industry discussions on climate change and energy security issues. The framework will also promote U.S. exports of energy and environmental equipment and services through trade events, missions, and seminars; identify and eliminate market access barriers; and develop an international standards system for calibrating and consistently measuring emissions.

Clean and efficient energy technologies will be the cornerstone of a vibrant and prosperous 21st-century economy. And the MEM process is a key opportunity for businesses to offer their insights

and innovative solutions to global energy and environmental challenges.

For more information on MEM and follow-up activities, contact Frank Caliva of the Office of Energy and Environmental Industries (OEEI) at (202) 482-8245 or [frank.caliva@mail.doc.gov](mailto:frank.caliva@mail.doc.gov). For more information on climate change policies or U.S. global competitiveness issues, contact Marc Lemmond of OEEI at (202) 482-3889 or [marc.lemmond@mail.doc.gov](mailto:marc.lemmond@mail.doc.gov).



Secretary of Commerce Gutierrez was joined on September 19, 2007, in Washington, D.C., by EPA Administrator Stephen L. Johnson, Chairman of the White House Council on Environmental Quality Jim Connaughton, and Deputy National Security Advisor Dan Price in briefing business on the administration's new climate change initiative. (U.S. Department of Commerce photo)

## Environmental monitoring

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universities to contribute to research and development efforts. Trade and investment barriers can complicate those strategies. The Department of Commerce remains ready to assist the U.S. environmental monitoring and analytical instrumentation industry in addressing trade issues and in developing its presence in important foreign markets.

For more information on the global competitiveness of the U.S. environmental monitoring and instrumentation sector, please contact Todd Delelle of the Office of Energy and Environmental Industries at (202) 482-4877 or [todd.delelle@mail.doc.gov](mailto:todd.delelle@mail.doc.gov).

## Calendar of Events

### Washington International Renewable Energy Conference

Washington, D.C.  
March 4–6, 2008  
[www.wirec2008.gov](http://www.wirec2008.gov)  
OEEI contact: Brian O’Hanlon, tel. (202) 482-3492; e-mail: [brian.ohanlon@mail.doc.gov](mailto:brian.ohanlon@mail.doc.gov)

### Water Quality Association Annual Conference and Exhibition—WQA Aquatech USA 2008

Las Vegas, Nevada  
March 25–28, 2008  
[www.wqa.org](http://www.wqa.org)  
OEEI contact: Ellen Bohon, tel. (202) 482-0359; e-mail: [ellen.bohon@mail.doc.gov](mailto:ellen.bohon@mail.doc.gov)

### Air and Waste Management Association Conference—The Climate Policy Puzzle: Putting the Pieces Together

Arlington, Virginia  
April 2–3, 2008  
[www.awma.org/events/view\\_event.html?typeid=1&id=86](http://www.awma.org/events/view_event.html?typeid=1&id=86)  
Marc Lemmond  
(202) 482-3889  
[marc.lemmond@mail.doc.gov](mailto:marc.lemmond@mail.doc.gov)

### ExpoMin 2008

Santiago, Chile  
April 15–18, 2008  
[www.expomin.cl/index.php?idi=8](http://www.expomin.cl/index.php?idi=8)  
OEEI contact: Shannon Fraser, tel. (202) 482-3609; e-mail: [shannon.fraser@mail.doc.gov](mailto:shannon.fraser@mail.doc.gov)

### Coal Prep 2008

Lexington, Kentucky  
April 29–May 1, 2008  
<http://coalaggprepshow.com/CoalPrep2008/Public/MainHall.aspx?ID=1676>  
OEEI contact: Shannon Fraser, tel. (202) 482-3609; e-mail: [shannon.fraser@mail.doc.gov](mailto:shannon.fraser@mail.doc.gov)

### Electric Power

Baltimore, Maryland  
May 6–8, 2008  
[www.electricpowerexpo.com](http://www.electricpowerexpo.com)  
OEEI contact: Shannon Fraser, tel. (202) 482-3609; e-mail: [shannon.fraser@mail.doc.gov](mailto:shannon.fraser@mail.doc.gov)