



# ENERGY, ENVIRONMENT, AND GLOBAL CHALLENGES

Newsletter by the American Resource Center  
October 2009

“So we have a choice to make. We can remain one of the world’s leading importers of foreign oil, or we can make the investments that would allow us to become the world’s leading exporter of renewable energy. We can let climate change continue to go unchecked, or we can help stop it. We can let the jobs of tomorrow be created abroad, or we can create those jobs right here in America and lay the foundation for lasting prosperity.”

*President Obama,  
March 19, 2009*

There is no question that global warming is the most defining issue of our time. The science clearly shows that should we continue burning fossil fuels at today's current rate, the world's temperature will be markedly warmer and its climate increasingly unpredictable.

In December 2009, the world's nations will gather in Copenhagen to negotiate an international climate agreement that will aim to reduce global emissions and halt the threat of global warming. Under the leadership of President Obama, the United States has been actively engaged in ongoing climate discussions. The US is dedicated to combating climate change and reaching a strong international agreement that puts the world on a path toward a clean and green future.

International treaties and domestic legislation, such as the pending Waxman-Markey Bill, are important. This high-level approach provides an important framework for long-term US goals to reduce our emissions. But equally important are local-level initiatives. Everyday in every city across America local communities are taking steps to reduce their carbon footprint. From California to Maine, Americans are demanding action from their local representatives and themselves, and they are achieving green results.

It is this dual 'top down, bottom up' approach that will reduce US dependence on fossil fuels and decrease harmful emissions. The 'top down' American Recovery Act has already directed significant funds toward clean technology research, which will spur innovation for green technology now in-demand from the 'bottom up' consumers.

Washington's efforts alone are only one part of the large American mosaic of initiatives to combat climate change. In this environmental edition of the American Resource Center's newsletter, I invite you to learn more about all our efforts – from US-led Major Economies Forums to our smart grid revolution - to meet the climate challenge and build a clean energy future.

Ambassador Oreck

## President Obama's Address to U.N. General Assembly

*Obama's first address to United Nations focuses on "new era of engagement"*

23 September 2009

An extract from President Obama's address to U.N. General Assembly on September 23 concerning climate change the preservation of our planet

"---we must recognize that in the 21st century, there will be no peace unless we take responsibility for the preservation of our planet. And I thank the Secretary General for hosting the subject of climate change yesterday.

The danger posed by climate change cannot be denied. Our responsibility to meet it must not be deferred. If we continue down our current course, every member of this Assembly will see irreversible changes within their borders. Our efforts to end conflicts will be eclipsed by wars over refugees and resources. Development will be devastated by drought and famine. Land that human beings have lived on for millennia will disappear. Future generations will look back and wonder why we refused to act; why we failed to pass on -- why we failed to pass on an environment that was worthy of our inheritance.

And that is why the days when America dragged its feet on this issue are over. We will move forward with investments to transform our energy economy, while providing incentives to make clean energy the profitable kind of energy. We will press ahead with deep cuts in emissions to reach the goals that we set for 2020, and eventually 2050. We will continue to promote renewable energy and efficiency, and share new technologies with countries around the world. And we will seize every opportunity for progress to address this threat in a cooperative effort with the entire world.

And those wealthy nations that did so much damage to the environment in the 20th century must accept our obligation to lead. But responsibility does not end there. While we must acknowledge the need for differentiated responses, any effort to curb carbon emissions must include the fast-growing carbon emitters who can do more to reduce their air pollution without inhibiting growth. And any effort that fails to help the poorest nations both adapt to the problems that climate change have already wrought and help them travel a path of clean development simply will not work.

It's hard to change something as fundamental as how we use energy. I know that. It's even harder to do so in the midst of a global recession. Certainly, it will be tempting to sit back and wait for others to move first. But we cannot make this journey unless we all move forward together. As we head into Copenhagen, let us resolve to focus on what each of us can do for the sake of our common future."

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Read more at <http://www.america.gov>

## **The Greening of U.S. Architecture: Building a Sustainable Future**

*Students are promoting the eco-design trend, say educators*

07 July 2009

By Lauren Monsen, Staff Writer

Washington — With many residential and corporate clients now requesting an environmentally friendly approach to their design needs, so-called “green architecture” has become an increasingly hot commodity, and a number of U.S. universities have responded by developing sustainable-design courses for their architecture programs.

Most often, students themselves are driving that trend, say two prominent educators.

Architecture professors Linda Keane (of the Art Institute of Chicago) and Walter Grondzik (of Ball State University in Muncie, Indiana) recently told *America.gov* how architecture is evolving to meet new energy requirements — and how young architects-in-training are learning new skills to meet the challenges of the 21st century.

Although public awareness of “green” architecture is a relatively recent phenomenon, Keane said that its foundations can be traced to the 1970s, when a small vanguard of progressive architects began creating “passive solar” buildings that drew upon renewable energy sources.

“There were firms practicing this way, but they were on the fringe,” Keane recalled, “and it wasn’t called ‘green architecture’ then.” She cited the “age-old principles of natural ventilation and use of sunlight,” which were already being incorporated into certain design schemes — and which have been rediscovered and embraced by today’s environmentally conscious practitioners.

A few schools “were teaching sustainable principles 30–40 years ago, ahead of the curve,” Grondzik said. These days, more schools are offering courses on energy-efficient design and the use of sustainable materials, but Keane and Grondzik both cautioned that the “greening” of U.S. architecture programs is in its infancy. Grondzik estimated that “maybe 10 percent of U.S. architecture schools do a fairly good job” of grounding students in the precepts of sustainability.

“It’s a slow process,” he said. “And it’s definitely not mandatory” for students to address environmental concerns in most architecture programs. But in years to come, he predicted, the sustainable-design movement “will be gaining momentum” as a new, “greener” crop of architects enters the work force.

“It’s all about generational change,” he said. “I think the stronger architecture programs have been student-initiated. Schools have responded to student demand” for more instruction on sustainability.

Keane agreed. “It takes time to change behavior; people are often resistant to change,” she said. “But a lot of younger people are attuned to the concept of sustainable design, and this will probably turn the tide in the years ahead.”

Even at architecture schools that excel in teaching sustainability, requirements for graduation may vary — but most programs expect students to undertake internships so that they acquire some hands-on design experience, whether eco-related or not. “A broad internship is a linchpin of our program” at Ball State University, Grondzik said.

At the Art Institute of Chicago, “we have a series of courses known collectively as The Green Zone,” Keane said. “These are a cluster of courses that focus on energy-efficient design, and students who are interested can take them all.” Moreover, “some schools offer LEED [Leadership in Energy and Environmental Design] courses,” she said, referring to a rating system that recognizes outstanding sustainable design. “Many of our students are LEED-certified as they graduate. We also have a historic preservation program” that emphasizes the retrofitting of existing structures to reduce their carbon footprint.

Retrofitting is an important aspect of sustainable architecture; no less a landmark than New York’s iconic Empire State Building has recently undergone a multi-step conversion process to become more energy-efficient. While academic programs tend to focus on designing new buildings that are sustainable from the start, “a lot of practitioners are aware of retrofitting as a potential growth industry,” Grondzik said.

According to Keane, bringing sustainable design to urban areas can restore a sense of connection to the natural world. “The most visual change has been the green roofs” that often feature grass, trees and plants, she said. “It’s an amazing thing to be on a green roof in the middle of surrounding skyscrapers. Everything else in the city is paved in hard surfaces. It’s a return to trying to live more gracefully.”

Grondzik observed that there is much confusion about terms such as “green” and “sustainable,” which are closely related but not synonymous. “Sustainability is really our ability to live within our environmental means,” he said. “A sustainable project cannot pollute, and cannot rely on nonrenewable resources. Green is a step towards sustainable, but it’s not completely carbon-neutral.”

Whether merely “green” or fully sustainable, architecture is adapting to meet the needs of the modern world. “I read an article that says more than 50 percent of clients initiate the demand for sustainable design,” Grondzik said. “In many cases, they’re actually pulling the architects along.”

Added Keane: “It’s an exciting time. When I came to the Art Institute of Chicago in 1985, no one was interested in sustainable design. Now, artists, architects, designers and scientists — everyone’s interested. It feels like we’re on the cusp of change.”

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Read more at <http://www.america.gov>



## **Green Groundswell Sweeps U.S. Campuses**

*School presidents pledge carbon footprint reduction*

10 March 2008

By Jeffrey Thomas, Staff Writer

Washington -- The “greening” of U.S. campuses is gaining momentum. Many college and university presidents are committing their institutions to a reduction in their carbon footprint -- the amount of carbon dioxide and other greenhouse gases produced by human activity over the course of a year.

A new sustainability report card grading the 200 most heavily endowed universities -- schools with endowments ranging from \$230 million to \$35 billion -- found a “green groundswell” on campuses, with nearly 45 percent making a commitment to fight climate change through cutting carbon emissions.

Almost 500 American college and university presidents have signed pledges to develop a comprehensive plan at their institutions to achieve climate neutrality -- net-zero carbon emissions -- as soon as possible. In the meantime, according to the pledge, they must take two or more tangible actions to reduce greenhouse gases while the more comprehensive plans are being developed. One example of such an action is purchasing or producing at least 15 percent of the electricity consumed by their institutions from renewable sources; another is investing the institution’s endowment as much as possible in green companies.

Finally, the pledge requires the institution to make its action plan and progress reports available to the public.

### **HOW ONE COLLEGE REDUCED ITS CARBON FOOTPRINT**

In 2006, the College of the Atlantic (COA) in Bar Harbor, Maine, located near the scenic Acadia National Park, pledged it would become the first carbon net-zero campus. A small college (approximately 325 students) dedicated to ecology, COA made the pledge “because it’s the right thing to do,” said COA President David Hales in an interview. “The primary motivation,” he said, “is to practice what we teach.”

To reduce its carbon emissions -- which play a key role in global warming -- COA conducted a comprehensive energy audit and began extensive work to improve energy efficiency in all its buildings. Incandescent light bulbs were replaced with energy-saving compact fluorescents wherever possible. The college, which offers only one degree, human ecology, promoted alternative commuting methods, such as carpooling and biking, and instituted flexible work plans so more employees could work from home.

COA focused the entire college community on the concept of sustainability -- raising organic food and involving staff and students in such decisions as which furniture to purchase and which trees to remove for its new energy-efficient dorms, heated by wood pellets. The college also created an advisory committee.

Students studied the carbon-offset market intensively, looking for ways to counteract emissions the college could not avoid by investing in programs that limit emissions elsewhere. They selected a project in Portland, Oregon, that optimizes traffic signals and manages traffic flow, thereby reducing the amount of time cars spend idling at traffic lights. This practice of carbon offsets is based on the idea that because there is only one atmosphere, reducing emissions by a ton anywhere reduces emissions to the total

atmosphere.

In December 2007, just 15 months after taking on the challenge of reducing its carbon footprint to net zero, COA announced it had fulfilled its pledge -- becoming the first college or university to achieve carbon neutrality.

For its actions, an environmental news Web site (Grist.org) ranked COA the “greenest college in the world.” The nonprofit Sustainable Endowments Institute (SEI) also named COA as one of four colleges and universities to receive the institute’s first Sustainability Innovator Award.

## GRADING COLLEGES AND UNIVERSITIES ON THEIR GREENNESS

For two years in a row, SEI has published a report card grading the most heavily endowed campuses. The latest found that green building standards guide new construction at 59 percent of the 200 schools, and 42 percent are using hybrid or electric vehicles in transportation fleets.

More than one-third of the rated colleges and universities are purchasing renewable energy, and 30 percent are producing their own wind or solar energy. More than two-thirds are buying food from local farms. Biodiesel fuel now is being made and used by almost one-third of schools.

More than two-thirds earned a better report card in 2008 than in 2007. None of these generally large universities got an overall grade of “A,” but six received an “A-”: Harvard University in Massachusetts, Dartmouth College in New Hampshire, the University of Washington, Middlebury College in Vermont, Carleton College in Minnesota and the University of Vermont.

These 200 colleges and universities represent more than \$343 billion in endowment assets, and the SEI report card regards endowment practices and shareholder engagement as a vital component of sustainability practices. The report found that the percentage of schools with endowment investments in renewable energy funds more than tripled from 9 percent to 31 percent.

More than a third of schools now have full-time campus sustainability administrators.

The College Sustainability Report Card 2008 is available on the Web site of the Sustainable Endowments Institute.

The National Wildlife Federation recently released a study of best practices from U.S. colleges and universities on how to reduce greenhouse gas emissions on campus. The report is available on its Web site.

Harvard University has adopted a series of campus-wide sustainability principles ranging from increasing efficiency and use of renewable resources to decreasing production of waste and hazardous materials. For details on the green building principles Harvard adopted and the products and technologies used, see the Green Building Resource on the Harvard Web site.

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Read more at <http://www.america.gov>

## FEATURES FROM AMERICA.GOV

### **Adapting to a Changing Climate**

As temperatures and sea levels rise, federal agencies are working to establish a national climate service to help communities, regions and nations respond to a changing planet.

[http://www.america.gov/climate\\_change.html](http://www.america.gov/climate_change.html)

### **The Smart Grid Revolution**

In the smart-grid future, a digital system will save energy, produce electricity from renewable sources, repair itself and fuel a new generation of electric vehicles.

[http://www.america.gov/smart\\_grid.html](http://www.america.gov/smart_grid.html)

### **A Timeline of Environmental Treaties**

This list of key environmental treaties shows how nations are working together, politically and scientifically, to safeguard our planet and respond to a global threat. The United States, whose pollution control laws serve as models for other nations, remains a leader in identifying, mitigating and remediating environmental hazards.

[http://www.america.gov/multimedia/photogallery.html#/30145/env\\_time/](http://www.america.gov/multimedia/photogallery.html#/30145/env_time/)

### **Understanding the Carbon Cycle**

Carbon moves between plants and animals, earth, atmosphere and oceans in a continuous cycle. Understanding this cycle is a key to predicting the behavior of Earth's climate.

<http://www.america.gov/carbon.html>

### **U.S. Architecture Goes Green**

Environmental concerns and the need for sustainable development are prompting American architects to innovate, often in unexpected ways.

[http://www.america.gov/architecture\\_green.html](http://www.america.gov/architecture_green.html)



### **eJournal USA: Climate Change Perspectives (September 2009)**

This eJournal USA offers perspectives of experts and activists in several key countries on effective policies to curb greenhouse gas emissions to mitigate global warming and adapt to irreversible changes, and features an introduction by U.S. special envoy Todd Stern.

<http://www.america.gov/publications/ejournalusa/0909.html>



### **eJournal USA: The Greening of U.S. Corporations (March 2008)**

This issue of eJournal USA delves into what those familiar with the history of the environmental movement in the United States might see as a surprising trend — the way U.S. corporations in recent years have embraced environmentally friendly ways of doing business. What prompts a corporation to “go green”?

<http://www.america.gov/publications/ejournalusa.html#0308>



### **eJournal USA: Clean Energy Solutions (July 2006)**

Projected dramatic increases in energy consumption in the coming decades, combined with a higher risk of climate change, require a massive global response based on technological innovation and the power of the marketplace. Experts and government officials describe the options before us, including renewable energy, novel vehicles, and low-carbon power generation, and discuss the best ways leading to a sustainable energy future.

<http://www.america.gov/publications/ejournalusa.html#0706>

## **SELECTED REPORTS AND ARTICLES**

**Proposed Rulemaking: Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards.** EPA, September 15, 2009.

The combined EPA and NHTSA standards that make up this proposed National Program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon (MPG) if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these proposed standards would cut carbon dioxide emissions by an estimated 950 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). Under this proposed National Program, automobile manufacturers would be able to build a single light-duty national fleet that satisfies all requirements under both the National Program and the standards of California and other states, while ensuring that consumers still have a full range of vehicle choices.

<http://www.epa.gov/otaq/climate/regulations.htm>

### **Clean Air Issues in the 111th Congress (01/16/09)**

Attention to clean air issues in the 111th Congress is expected to focus on climate change and the regulation of emissions from electric utilities. In the last Congress, at least half a dozen bills were introduced to address electric utility air emissions and about a dozen bills addressed the regulation of greenhouse gases (GHGs) economy-wide. None passed. The

Lieberman-Warner bill to establish a cap-and-trade system for GHGs (S. 2191/S. 3036) was reported by the Environment and Public Works Committee and debated briefly on the Senate floor. Bills similar to this are expected to have a high priority in the new Congress.

<http://fpc.state.gov/documents/organization/120611.pdf>

**Wind Power's Weird Effect** by Jonathan Fahey. Forbes Magazine, September 7, 2009.

The news about wind power is mixed, notes the author. The good news is that, thanks to cheap wind energy, in some parts of the country when there is too much power on the grid, wholesale power prices are now dropping to zero or below at certain times of the day. The bad news is that wind turbines spin the most at night when demand is low and least during afternoons when power is needed. Some power plants are hard pressed to power down when wind power is at its highest. In the long run, the wind power boom could push daytime prices higher. To balance out fickle wind turbines, utilities will need electricity during peak times from gas-fired plants; that intermittent power will be expensive.

<http://www.forbes.com/forbes/2009/0907/outfront-energy-exelon-wind-powers-weird-effect.html>



**A Copenhagen Climate Agreement.** Pew Center on Global Climate Change, September 2009.

The upcoming UN Conference on Climate Change in Copenhagen presents an historic opportunity to strengthen the international response to global climate change. The aim in Copenhagen should be agreement on the fundamentals of a new multilateral framework ensuring that all major economies contribute equitably to the global climate effort. This interim agreement should establish the basic legal and institutional architecture of a post-2012 framework within which governments can then negotiate a final agreement containing specific national commitments.

<http://www.pewclimate.org/international/copenhagen-climate-agreement>

**The American Resource Center's supplementary list of electronic resources offers more selected reports, documents, and articles on energy, environment, and global challenges, available through**

<http://finland.usembassy.gov/ee2009.html>

## **SELECTED BIBLIOGRAPHY**

### **Books on energy/environment/globalization available at the American Resource Center:**

#### **Acting in Time on Energy Policy**

By: Gallagher, Kelly Sims (EDT); Ellwood, David T. (FRW)

Pub.Date: 5/10/2009

#### **American Environmental Leaders**

By: Becher, Anne; Richey, Joseph

Pub.Date: 9/1/2008

#### **Anthropology and Climate Change: From Encounters to Actions**

By: Crate, Susan A. (EDT); Nuttall, Mark (EDT)

Pub.Date: 11/30/2008

#### **Beyond Light Bulbs: Lighting the Way to Smarter Energy Management**

By: Meredith, Susan

Pub.Date: 10/1/2008

#### **Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability**

By: Speth, James Gustave

Pub.Date: 3/28/2008

#### **Climate Change: A Reference Handbook**

By: Downie, David L.; Brash, Kate; Vaughan, Catherine

Pub.Date: 3/3/2009

#### **Climate Change: Picturing the Science**

By: Schmidt, Gavin; Wolfe, Joshua; Sachs, Jeffrey D. (FRW)

Pub.Date: 4/6/2009

#### **Climate Change: Simple Things You Can Do to Make a Difference**

By: Clift, Jon; Cuthbert, Amanda

Pub.Date: 4/2/2009

#### **Climate Change: The Science of Global Warming and Our Energy Future**

By: Mathez, Edmond A.

Pub.Date: 4/17/2009

**Discovery of Global Warming**

By: Weart, Spencer R.

Pub.Date: 10/31/2008

**Earth: The Sequel: The Race to Reinvent Energy and Stop Global Warming**

By: Krupp, Fred; Horn, Miriam

Pub.Date: 3/12/2008

**Fundamentals of Renewable Energy Processes**

By: Da Rosa, Aldo Vieira

Pub.Date: 3/30/2009

**Global Warming and the World Trading System**

By: Hufbauer, Gary Clyde; Charnovitz, Steve; Kim, Jisun

Pub.Date: 4/1/2009

**Global Warming Is Good for Business: How Savvy Entrepreneuers, Large Corporations, and Others are Making Money While Saving the Planet**

By: Keilbach, K. B.

Pub.Date: 4/1/2009

**Hijacking Sustainability**

By: Parr, Adrian

Pub.Date: 3/31/2009

**In the Way of Nature: Ecology and Westward Expansion in the Poetry of Anne Bradstreet, Elizabeth Bishop and Amy Clampitt**

By: Boschman, Robert

Pub.Date: 6/30/2009

**Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States**

By: Hess, David J.

Pub.Date: 5/29/2009

**Natural Protest: Essays on the History of American Environmentalism**

By: Egan, Michael (EDT); Crane, Jeff (EDT)

Pub.Date: 11/14/2008

**Natural Visions: The Power of Images in American Environmental Reform**

By: Dunaway, Finis

Pub.Date: 6/1/2008

**Nature of Being Human: From Environmentalism to Consciousness**

By: Fromm, Harold

Pub.Date: 3/19/2009

**Paradise Found: Nature in America at the Time of Discovery**

By: Nicholls, Steve

Pub.Date: 5/1/2009

**Plot to Save the Planet: How Visionary Entrepreneurs and Corporate Titans are Creating Real Solutions to Global Warming**

By: Dumaine, Brian

Pub.Date: 6/3/2008

**Profiting from Clean Energy: A Complete Guide to Trading Green in Solar, Wind, Ethanol, Fuel Cell, Carbon Credit Industries, and More**

By: Asplund, Richard W.

Pub.Date: 3/3/2008

**Renewable Energy from Forest Resources in the United States**

By: Solomon, Barry D. (EDT); Luzadis, Valerie A. (EDT)

Pub.Date: 12/30/2008

**Structuring an Energy Technology Revolution**

By: Weiss, Charles; Bonvillian, William B.

Pub.Date: 4/30/2009

**Sustainability by Design: A Subversive Strategy for Transforming Our Consumer Culture**

By: Ehrenfeld, John R.

Pub.Date: 8/25/2009

**Toward Sustainable Communities: Transition and Transformations in Environmental Policy**

By: Mazmanian, Daniel A. (EDT); Kraft, Michael E. (EDT)

Pub.Date: 5/29/2009

**Transportation in a Climate-Constrained World**

By: Schafer, Andreas; Heywood, John B.; Jacoby, Henry D.; Waitz, Ian A.

Pub.Date: 6/30/2009

## **Wilderness Warrior: Theodore Roosevelt and the Crusade for America**

By: Brinkley, Douglas

Pub.Date: 8/1/2009

## **Worldchanging: A User's Guide for the 21st Century**

By: Steffen, Alex (EDT); Gore, Albert (FRW)

Pub.Date: 3/1/2008

### **AMERICAN RESOURCE CENTER**

#### **General Information**

The American Resource Center seeks to further the understanding of America and its institutions. It specializes in providing the latest and most accurate information about the U.S. government and its policies, American values, history, culture and character.

The collection is strong in social sciences, government and politics, economics and international relations, American history and literature, and U.S. management practices. The holdings comprise more than 12,000 volumes, subscriptions to 75 periodicals, 2 American newspapers, online databases and over 400 videotapes.



The ARC collection may be accessed through the HELKA-online catalog. Lending services are available according to the regulations of the National Library of Finland.

The American Resource Center is managed jointly by the National Library of Finland and the Public Affairs Office of the U.S. Embassy in Helsinki.

#### **America @ Your Library**

America @ Your Library is an U.S. Embassy Helsinki project, which donates books to regional libraries around Finland. The donation includes over 100 non-fiction and fiction titles. The topics highlight American contemporary society, political trends, history, and cultural diversity and include both classic and modern American fiction.

#### **ARC Grant**

The American Resource Center's annual scholarship (launched 3 years ago to commemorate the ARC's 60th anniversary) provides a grant of 1,000 Euros to support Master's degree work on studies of the U.S. Applications are invited from students of Finnish nationality, enrolled at a Finnish university, and who are currently working on a Master's Thesis on a topic related to the United States. The deadline for the ARC grant 2009 is on November 30, 2009.

*Views expressed in the articles and reports are those of the authors and do not necessarily reflect U.S. Government policies.*



## **The American Resource Center**

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<http://www.facebook.com/AmericanResourceCenter>





# US Embassy Helsinki presents the Fall 2009 Energy and Environment Series



*A four-part series speaker event exploring how America is dealing with climate change and embracing a low-carbon future via new clean technology innovations.*

## **Event 1: “Extreme Ice Survey : The Art and Science of Vanishing Glaciers” (photographs + lecture)**

**Thursday, October 29, 2009 13:00-15:00**

*Opening Remarks: Professor Jari Niemelä, Dean, Faculty of Biosciences, University of Helsinki*

*Speaker: James Balog, renowned nature photographer and geomorphologist*

*Venue: University of Helsinki, Viikki Campus, Infocenter Korona, Lecture Hall 2 (Viikinkaari 11)*

*Open seating*

## **Event 2: “Reinventing Fire: Speeding Our Transition to Efficiency and Renewable Energy ”**

**Thursday, November 12, 2009 14:00-16:00**

*Opening Remarks: Jukka Noponen, Executive Director, Energy Program, SITRA*

*Speaker: Michael Potts, CEO of the Rocky Mountain Institute*

*Venue: SITRA, Atlas Hall, Itämerentori 2*

*Limited Seating\**

## **Event 3: The Future of Wind: How America’s New Wind Technology is Reducing Fossil Fuel Dependency (via DVC from Colorado)**

**Tuesday, November 17, 2009 15:00-17:00**

*Opening Remarks: Deputy Chief of Mission, Michael Butler, US Embassy*

*Speaker: Dr. Fort Felker, Director of the National Wind Tech Center, US National Renewable Energy Laboratory*

*Venue: American Resource Center, Yliopistonkatu 1*

*Open seating*

## **Event 4: One Million Plug-in Hybrid Vehicles by 2015: Challenges for Advanced Battery Technology**

**Wednesday, December 2, 2009, 15:00-17:00**

*Opening Remarks: Tuula Teeri, President of Aalto University*

*Speaker: Dr. Kandler Smith, Senior Engineer, US National Renewable Energy Laboratory*

*Venue: Helsinki University of Technology, Saha Auditorium, Konemiehentie 1*

*Open seating*

*Please check US Embassy Helsinki’s Website for updates—<http://finland.usembassy.gov/ee2009.html>*

*Contact Economic Officer, Wendy Kahler at [kahlerwa@state.gov](mailto:kahlerwa@state.gov) for more information.*

*\*Due to limited space, the SITRA event is reserved seating only. Please contact Tuula Laitinen at SITRA via email ([Tuula.Laitinen@sitra.fi](mailto:Tuula.Laitinen@sitra.fi)) to reserve your place. All other events are open seating.*