

Nordic/Baltic Regional ESTH Hub e-Letter

Welcome to the first e-letter, our new *unclassified* electronic publication sharing regional information, news and events. We encourage you to visit the websites of our Embassies throughout the Hub. Feel free to disseminate to your contacts. Happy Holidays!

AROUND THE REGION.....

DENMARK



Conference on Anti-microbial Resistance

Ambassador Fulton welcomed approximately 200 leading scientists and researchers to a groundbreaking conference focusing on anti-microbial resistance. The three day event, which showcased U.S.-Nordic cooperation and collaboration, was organized by the National Institute of Allergy and Infectious Diseases (NIAID), Aarhus University, Statens Serum Institute and the Danish

Association for Research Managers and Administrators (DARMA). Following the three-day conference, NIAID sponsored a two-day workshop detailing how foreign researchers can approach the U.S. for funding opportunities. (Photo: Ambassador Fulton and John Westensee, Chairman of the Board at DARMA) [Press release](#).

Rødsand 2 Wind Farm Online

New wind farm adds 90 more turbines to the country's offshore green energy capacities. [Full article](#).

Denmark to significantly cut coal power

Denmark is on track to follow its goal to swap coal power for biomass in many power stations. In a move that would cut national coal consumption by a fourth, the government is expected to announce plans that will require large power stations to convert from coal to biomass. [Full article](#).



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Danish Scientists: Happiest in the World?

The journal *Nature's* recent scientific salary/career survey finds that Danish scientists have the highest job satisfaction. Factors considered included salary, holiday entitlement, pensions, hourly working week and independence. [Full article](#).

ESTONIA

GLOBE summer camp

U.S. Ambassador to Estonia, Michael C. Polt, opened the Global Learning and Observations to Benefit Environment (GLOBE) student summer camp at the Jäneda Manor, Lääne Viru County this fall. GLOBE is an international program in which pupils all over the world will gather and analyze information on climate and environment in cooperation with scientists, including the NASA experts. The first Estonian schools joined the GLOBE program in 1996. [Press release](#).

Marking World AIDS Day; Launching DHAPP

The U.S. Department of Defense HIV/AIDS Prevention Program (DHAPP) was launched in Estonia on December 1st, World AIDS Day. The DHAPP seeks to reduce the incidence of HIV/AIDS among uniformed personnel. [Press release](#).

Knowledge based economy necessary

Foreign Minister Urmas Paet emphasized Estonia's main priorities during the 2011 Baltic Council presidency will be the development of a knowledge-based economy, increased energy security and the establishment of energy and transport associations. [Full article](#).

FINLAND

Creating Energy Efficient, Intelligent Buildings on the Embassy Compound

The renovation project of the Embassy compound stems from Ambassador and Mrs. Oreck's commitment to energy efficiency and intelligent buildings. The unveiling of the construction banner on October 6, 2010, in Ambassador Oreck's words, was moving from conversation to action, from intention to implementation. The renovation project will take several years and will involve the Consulate Annex as well as the Ambassador's official residence. The Consulate Annex was built in 1904 and the official residence of the Ambassador in 1940. [Press release](#).



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Smart Grid MOU Signing at the U.S. Embassy

U.S. Ambassador to Finland Bruce Oreck and Bill Ritter, Governor of the State of Colorado signed a Memorandum of Understanding (MOU) between the State of Colorado and Schneider Electric to develop a state-wide electric car infrastructure in Colorado. (Photo: Ambassador Oreck and

Governor Ritter) [Press release](#).

Modest recovery in Saimaa ringed seal population

The population of the endangered Saimaa ringed seal is rising again. Current estimates are that the seal, which is native to Finland's Saimaa waterway, has a population of about 270. The estimate puts the population at ten more than a year ago. The numbers have been declining in recent years, after mild winters made it more difficult for the seals to reproduce. [Full article](#).



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GERMANY

Ambassador Murphy Visits First Solar

Ambassador Murphy recently visited the First Solar manufacturing plant in Frankfurt (Oder), Germany. The Arizona-based company is the world's largest thin film photovoltaic manufacturer. The Ambassador met with Managing Director Burghard von Westerholt, Vice President of Policy and Public Affairs David Wortmann and Manufacturing Manager Roswitha Biermann. The facility in Frankfurt (Oder) currently employs 650 workers, and First Solar plans to double the plant's production capacity. Strong demand from the company's European customer base was the driving force behind the new €161 million investment plan which is expected to create 600 new jobs.

(Photo: Ambassador Murphy (center)

at First Solar)

Discussing Germany's Ambitious Energy Concept

The U.S. Embassy in Berlin and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety co-hosted a Transatlantic Climate Bridge Roundtable discussion on the German Energy Concept. Experts from the German Environment Ministry, Mr. Franzjosef Schafhausen, and German Economics Ministry, Dr. Heinz-Jürgen Scheid, provided engaging presentations of the German Energy Concept. Following these presentations, Georgia State Senate Majority Leader, Chip Rogers, spoke about efforts that are taking place in the U.S. State of Georgia. Attendees included stakeholders from both German and U.S. government, business, and NGOs. [Press release.](#)

The Green Machine: A second wind for German industry?

The Roding Roadster, a sports car unveiled at last September's Frankfurt motor show, has a powerful motor and lightweight construction that promise a thrilling ride. But at Munich's Technical University (TUM), which the Roding's designers attended, there is even more buzz about the Tesla, a battery-powered car from California. It shows that electro-mobility "could be fast and fun", says Markus Lienkamp, who teaches car technology at TUM. Annoyingly, Tesla opened a dealership in Munich on BMW's doorstep. [Full article.](#)



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ICELAND



Bilateral Agreement to Develop Clean Energy

The United States and Iceland signed a bilateral agreement aimed at increasing the world's understanding of advanced geothermal technologies and accelerating their deployment. The agreement was signed at the Culture House by the U.S. Ambassador to Iceland, Luis E. Arreaga, and the Icelandic Minister of Industry, Energy and Tourism, Katrín Júlíusdóttir. (Photo: Minister Júlíusdóttir and Ambassador

Arreaga) [Press release](#).

Icelandic Company to Sell 1,000 Electric Jeeps

The Icelandic development company Northern Lights Energy (NLE) has signed a declaration of intent with the American AMP Electric Vehicles on the sale of 1,000 electric jeeps in Iceland in the next five years. The project is part of a national initiative on the electrification of vehicles in Iceland, in which NLE has a role, *Fréttabladid* reports. [Full article](#).

LATVIA

Power-Gen International Trade Show

The US Embassy together with LIAA (Investment and Development Agency of Latvia) is organizing a delegation from Latvia to the Power-Gen International trade show from December 14-16 in Orlando, Florida. It is the electric power generation industry's largest event in the world, attracting more than 18,000 attendees and 1,200 exhibitors from over 75 countries. The world's largest power exhibition is held concurrently with the conference, showcasing thousands of products, technologies and services. [Press release](#).



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LITHUANIA

Joint Park Clean-Up Action

Embassy Vilnius employees and local volunteers recently participated in a quarterly lunch time trash clean-up surrounding the Embassy compounds. Before the clean-up started, the Green Team donated two laptops and 12 cell phones to the group of local volunteers called “DAROM.” DAROM is a Lithuanian NGO that organizes an annual nation-wide clean-up. DAROM’s projects are mostly organized through the web, by e-mail and phone. Embassy Vilnius believes that this donation will help to spread environmental education throughout Lithuania, especially in rural areas. The Vilnius Green Team was awarded a grant to strengthen the DAROM communication capabilities via the Regional Hub. The Embassy’s Green Team has made a commitment to improving the environment and saving energy within the Embassy community. (Photo: DAROM volunteers and American Embassy staff hard at work, cleaning the park.)



Ambassador’s Remarks for Science Awards Ceremony

Ambassador Derse presented remarks as the Lithuanian Ministry of Education and Science honored scientists from abroad of Lithuanian descent. Specifically, the Ministry feted professors Violeta Kelertienė from the University of Washington and Algirdas Avižienis, from the University of California in Los Angeles. [Full speech.](#)

NORWAY

World's largest floating tidal power plant

The Norwegian Minister of Petroleum and Energy, Mr. Terje Riis-Johansen, officially opened Hydra Tidals floating tidal power plant the Morild II. The opening ceremony, which took place on board the catamaran “MS Alba” in Gimsoystraumen in Lofoten – in the north of Norway, marks the start of the planned two-year trial period for testing and verification of plant Morild II and the technology. [Full article.](#)

Norway and Sweden Agree on a Common Market for Green Certificates

The governments of Sweden and Norway today agreed on a significant expansion of renewable energy projects until 2020. A common market for green certificates is to be in place by January 1st, 2012. [Press release.](#)



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Norwegian Government Announces \$1 Million for Health Initiative

The Norwegian Agency for Development Cooperation, Norad, will commit US\$1 million to support the Maternal mHealth Initiative. The commitment was announced during opening keynote remarks at the mHealth Summit, a three-day conference underway this week to explore ways mobile technology can increase access, quality and efficiency of healthcare all over the world. [Full article](#).

POLAND

United States and Poland Sign Agreement on Nuclear Safety

The Nuclear Regulatory Commission of the United States (NRC) and the National Atomic Energy Agency of Poland (PAA) signed a nuclear safety agreement while in Vienna to participate in the International Atomic Energy Agency's 54th annual General Conference. [Press release](#).

Poland Installs Biometric Fingerprint-Scanning ATM Machine

Poland has become the first nation in Europe to install biometric ATM machines that read fingerprints rather than magnetic cards. [Full article](#).

RUSSIA

General Electric Tech Center Opens

Ambassador John Beyrle provided remarks at the opening of General Electric Energy Power Technology Center in Kaluga. [Press release](#).

\$165 Million Plan for Renewable Energy

The World Bank announced on Thursday the start of a multimillion-dollar greenfield program of consulting and investment in Russian renewable energy that should unleash a "tsunami" of additional projects and funding. [Full article](#).

In Russia, a Push for Floating Nuclear Power Plants

Russians have come up with an idea; one that they hope could not only secure the country's position as the preeminent Arctic power, but also blossom into a lucrative export business: floating nuclear power plants. [Full article](#).

SWEDEN

Swedish solar technologies – a sunshine story

Despite the fact that the sun can be an infrequent visitor in Northern Europe during the winter months, Swedish companies and researchers are behind many pioneering solar technologies. Sweden.se goes in search of some of the bright ideas coming out of the darkness. [Full article](#).

NOAA Scientist received the Göteborg Award for Sustainable Development from H.R.H. Crown Princess Victoria

Dr. Kenneth Sherman, oceanographer and marine biologist at the U.S. National Oceanic and Atmospheric Administration (NOAA), was presented with the Göteborg Award for Sustainable



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Development for developing the concept Large Marine Ecosystems (LMEs) which creates natural administrative units that take into consideration socioeconomic factors and ecological limitations. [Press release](#).

WWF Lists Prominent Swedish CleanTech Companies in Climate Solver Challenge

WWF has launched its annual list of climate innovations that can facilitate the global transition to a low-carbon economy. The so-called Climate Solver companies are selected for their potential to reduce global CO2 emissions. [Full article](#).

E.U.

Clean Vehicle Website

The European Commission launched a website for identifying environment-friendly cars. The site outlines information on E.U./national legislation on clean and energy-efficient vehicles. It also contains a European database containing technical data for the vehicles. [Full article](#).

E.U. Countries Launch North Sea Electricity Grid

Ten European countries, including Norway, have agreed to develop an offshore electricity grid in the North Sea, in a bold move that promoters say will give Europe the opportunity to tap into an even bigger source of energy than the Middle East's oil capacity. [Full article](#).

Lawmakers Seal Deal on Toxic Substances in Electronic Goods

An updated E.U. law on restricting the use of toxic chemicals in electronic devices leaves little room for exemptions and lists a number of new substances for further scientific scrutiny in view of extending a black list of banned substances. [Full article](#).

U.S.

White House Factsheet on Green Energy

Read more on the Administration's significant clean energy efforts. [pdf file](#).

Fast Start Finance

After COP15, the U.S. implemented a significant increase in our international climate finance contribution, beginning with the Fiscal Year (FY) 2010 budget. The U.S. contribution to fast start financing in FY 2010 is a total of \$1.7 billion, consisting of \$1.3 billion of Congressionally appropriated assistance and \$400 million of development finance and export credit. [Website](#).

Clean Energy Ministerial Newsletter

The Clean Energy Ministerial is a high-level global forum to accelerate the transition to a clean energy economy. The Ministerial pursues 11 initiatives to: (i) improve energy efficiency worldwide through the Global Energy Efficiency Challenge, (ii) enhance clean energy supply and (iii) expand access to clean energy. For the latest on the Ministerial's initiatives visit the [Website](#).



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Clean Energy Stories

The U.S. Department of Energy shares clean energy stories from around the nation. The DOE showcases real-life examples of Americans working on energy efficiency in residential, commercial, and industrial sectors and renewable projects. [Website](#).

U.S. Unveils Initiative to Monitor and Manage Forest Carbon Dynamics

OSTP's Associate Director for Environment Shere Abbott announced details of an innovative new U.S. – sponsored program called SilvaCarbon, designed to strengthen global capacity to understand, monitor, and manage forest and terrestrial carbon dynamics—an essential element in the effort to combat climate change. [Full article](#).

National Transportation Standards

EPA Administrator Lisa Jackson and Secretary of Transportation Ray LaHood proposed the first national standards for greenhouse gas emissions and fuel efficiency for medium and heavy-duty trucks, vans, and buses. The new standards could save about 500 million barrels of oil and cut emissions by nearly 250 million metric tons over the life of model year 2014 to 2018 vehicles covered by the proposals. [Press release](#).

FEATURE OF THE MONTH:

Smart Grids: An Overview (Clinton Ibarra, intern)

What is a smart grid?

The system of electrical connections that transports electricity between producers and consumers is an electric grid. The process of making a grid “smart” focuses on digitizing the system. To accomplish this, the grid must be enhanced by adding new engineering technology capable of: fully monitoring the grid, gathering information, such as power disturbances and rating of transmission lines and providing enhanced grid communication (including the ability of power suppliers to inform consumers when electricity is expensive or in short supply). Smart grids move beyond the “traditional” electric system, where the purpose was limited to transporting electricity from where it was produced to where it was needed.

Increasing energy demands and growing diversification of energy supplies (now including nuclear, natural gas, wind, solar and geothermal) has strained the current grid systems. Current electric grids are unable to handle increasing demands and loads of energy. In short, they were not built to properly accommodate the new types of electricity production, particularly from renewable energy sources. Global energy demand will substantially increase within the next 25 years. According to a report by the U.S. Energy Information Administration, worldwide energy consumption shall rise from current rates by nearly 50% until 2035. This growing strain on grids also means a high number of disturbances (i.e. blackouts and power disruptions).

A significant obstacle to greater dependence on renewable energy resources is that antiquated grid systems cannot properly integrate such “new energy”; specifically, the distance required to send electricity from its production point to where it is needed poses challenges. Long distance



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transportation requires a larger number of resources to build the transportation infrastructure and leads to the loss of energy during transportation. Additionally, integrating a fluctuating power source creates hurdles: wind does not always blow at the same rate and the sun is not always shining at the same brightness. Accordingly, renewable energy, by definition, involves electric production variations.

Smart Grids Deliver

A smart grid will increase the capacity, reliability, efficiency and sustainability of the national system. Smart grids allow for enhanced monitoring and facilitate producer and consumer interaction with the system. Smart grids react to problems in production and transmission quickly by responding faster than what human capability allows. Electricity consumers may set “preferences” by programming electricity consumption to automatically take place during off-peak hours. Smart grids also look to decentralize systems, allowing for greater production where demanded. This reduces the need to transport electricity long distances, and reduces energy loss and its associated negative environmental impacts. Most importantly, the grids integrate renewable energy resources. The electric grid must be upgraded to manage the variations in electricity production from less consistent renewable sources. The result: smart grid’s ability to monitor and interact with all aspects of production, transportation and consumption instantaneously is fully utilized.

Are Smart Grids Dumb?

There are security concerns regarding the level of interaction within the smart grid system. By digitizing the system it becomes vulnerable to viruses and malicious network attacks that need to be protected against. Consumer privacy is also a concern: smart metering depends on the system measuring energy use in terms of amount, duration and purpose in order to maximize the smart grid benefits.

Current Events

Department of Energy Announces Five Awards to Modernize the Nation’s Electric Grid

Washington, D.C. – U.S. Energy Secretary Steven Chu announced an investment from the Department of Energy of more than \$19 million for five projects aimed at optimizing the nation’s electric grid. Collectively, these projects will apply technologies, tools and techniques that are capable of transforming the electric grid into a system that is cleaner and more efficient, reliable, resilient and responsive. [Full article.](#)

Secretary Chu Announces Two Million Smart Grid Meters Installed Nationwide

As a result of funding from the Recovery Act, smart grid technology is speeding the modernization of the nation’s electrical grid, helping to reduce the amount of time needed to respond to energy disruptions and enable consumers to monitor their energy consumption and costs. [Full article.](#)

Technology Companies Are Lining Up for Smart Grid Business

Technology companies are enlisting in steadily growing number in the smart grid campaign around the United States, and it may fall heavily on them to sustain momentum on this front until government policies take shape and consumers become believers. [Full article.](#)



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Smart Grids Could Save Europe €52bn

Smart grids could save the E.U. €52 billion annually, according to leading smart grid companies that have teamed up to promote European leadership in smart grids. [Full article](#).

Smart Grids Line Up in Fight against Climate Change

Smart grids are increasingly seen as a crucial weapon in the world's fight against climate change, with the E.U. among those rallying behind the new technology. [Full article](#).

Additional information:

U.S. Department of Energy – [website](#)

U.S. Environmental Protection Agency – [pdf file](#)

U.S. Federal Energy Regulatory Commission - [website](#)

European Commission: Energy – [website](#)

REGIONAL CALENDAR

- ***March 4-9, 2011 Visit of US Green Dream Team Tranche 3.*** Green experts and consultants, Hunter Lovins and Greg Miller will visit Helsinki and other cities. This visit is the third in a three-part event that will aim to spur Finland to action on climate policies, and share best practices. For European embassies Helsinki is willing to share these visitors with another EUR post. POC is Econoff Wendy Kahler or Poloff Jeff Arnold.



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