

AGENDA FOR THE

# GLOBAL WORKSHOP ON GRID CONNECTED RENEWABLE ENERGY

August 29 to September 6, 2009  
in Washington, DC

*Managed by*  
UNITED STATES ENERGY ASSOCIATION (USEA)

*Funded by*  
THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)



**USAID**  
FROM THE AMERICAN PEOPLE

**USEA**  
United States Energy Association

## Overview

This activity will be a two and a half day workshop followed by a site visit that will focus on the integration of grid-connected renewable energy in the power sector. Participants, along with key U.S. experts, will discuss the technical, market, regulatory, and policy barriers of renewable grid connection and construct strategies to accelerate development. The workshop will further utility executives' and policy makers' knowledge of modern technologies, financing strategies, policies, and successful project development methodologies, to foster renewable energy uptake in their countries and create a more attractive investment climate for the renewable energy sector. The site visits will allow the participants to observe the methodologies and technologies discussed during the workshop.

## Objectives

The objective of the workshop is to identify strategies for the promotion of interconnection of renewable energy and distributed generation/independent power projects into the power system.

## Foreign Participants

### Afghanistan

Eng. Amir Mohammad Alamzai  
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Ministry of Energy and Water  
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Ministry of Rural Rehabilitation and Development

### Central Asia

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**Liberia**

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**Philippines**

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## Participating Organizations

Alliance for Rural Electrification (ARE)- European Union [www.ruralelec.org](http://www.ruralelec.org)  
Baker McKenzie [www.bakernet.com](http://www.bakernet.com)  
The Cadmus Group [www.cadmusgroup.com](http://www.cadmusgroup.com)  
Covanta Energy [www.covantaholding.com](http://www.covantaholding.com)  
GE Energy [www.ge-energy.com/businesses/ge\\_wind\\_energy/en/index.htm](http://www.ge-energy.com/businesses/ge_wind_energy/en/index.htm)  
Interstate Renewable Energy Council (IREC) [www.irecusa.org](http://www.irecusa.org)  
Maryland Public Service Commission [webapp.psc.state.md.us/Intranet/home.cfm](http://webapp.psc.state.md.us/Intranet/home.cfm)  
Naval Energy Office, United States Navy [portal.navfac.navy.mil](http://portal.navfac.navy.mil)  
PA Consulting Group [www.paconsulting.com](http://www.paconsulting.com)  
Sacramento Municipal Utility District [www.smud.org](http://www.smud.org)  
Schiff Hardin LLP [www.schiffhardin.com](http://www.schiffhardin.com)  
Solar Electric Power Association [www.solarelectricpower.org](http://www.solarelectricpower.org)  
Solar Turbines [mysolar.cat.com](http://mysolar.cat.com)  
Stella Group, Ltd. [www.thestellagroupltd.com](http://www.thestellagroupltd.com)  
United States Agency for International Development [www.usaid.gov](http://www.usaid.gov)  
United States Department of Energy (USDOE), Energy Efficiency and Renewable Energy, Wind & Hydropower Technologies Program [www1.eere.energy.gov/windandhydro/](http://www1.eere.energy.gov/windandhydro/)  
United States General Services Administration [www.gsa.gov](http://www.gsa.gov)

## Emergency Contact Information

John Hammond, Program Manager, USEA (202)312-1241 (office) (202) 438-3111 (mobile)  
Marjorie Jean-Pierre, Deputy Program Manager, USEA (202) 312-1248 (office) (703) 675-1290 (mobile)  
Jason Hancock, Senior Program Coordinator, USEA (202) 312-1257 (office) (240) 997-0241 (mobile)  
Tricia Williams, Senior Program Coordinator, USEA (202) 312-1258 (office) (703) 981-8302 (mobile)

Medical/Police/Fire Emergency: Dial 911

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## Saturday, August 29

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Delegates arrive from their respective countries and check into the hotel.

**Hotel:** J.W. Marriott  
1331 Pennsylvania Avenue, NW  
Washington, DC 20004  
Phone: 1-202-393-2000  
Fax: 1-202-626-6991

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## Sunday, August 30

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*Executive time*

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## Monday, August 31

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- 8:30 am **Pick up delegates at hotel and escort them to USEA**  
**Location:** USEA Conference Room C, 1300 Pennsylvania Avenue, NW, Suite 550, Washington, DC  
**Contact:** Tricia Williams (703) 981-8302 (mobile)
- 9:00 am **Welcome and Opening Remarks and Participant Introductions**  
**Presenter:** *John Hammond, Program Manager, U.S. Energy Association (USEA)*
- 9:10 am **Introduction of USAID Renewable Energy Programs**  
*United States Agency for International Development*  
**Presenter:** *Allan Eisendrath, USAID*
- 9:20 am USAID Renewable Energy Toolkit  
**Presenters:** *Pamela Baldinger, USAID Energy Team*
- 9:30 am **Keynote – Barriers and Key Issues for Grid Connected Renewables**  
**Presenter:** *Dr. Jan Hamrin, Chief Executive Officer, HMW International*
- 10:20 am Overview and Distribution of "Handbook on Best Practices for the Successful Deployment of Grid-Connected Renewable Energy, Distributed Generation, Cogeneration and Combined Heat and Power in India"  
**Presenter:** *Tricia Williams, Senior Program Coordinator, USEA*
- 10:30 am *Break*

- 10:45 am      **Policy, Incentives & Regulation for the Promotion of Renewable Energy Applications; Federal and State Perspectives**  
**Moderator:**    *John Hammond, Program Manager, U.S. Energy Association, USEA*  
**Presenters:**    *Brian O'Hanlon, Senior Renewable Energy Analyst, Office of Energy and Environmental Industries, U.S. Department of Commerce*  
                         *Gearold Knowles, Schiff Hardin, LLP*  
                         *Kevin Mosier, Renewable Standards Program, Maryland Public Service Commission*  
                         *Guido Glania, Secretary General, Alliance for Rural Electrification (EU), Brussels, Belgium*
- Topics:**
- Policy and institutional constraints against greater use of renewable energy applications
  - Renewable Energy Portfolio Standards
  - Incentive Programs
- 12:30 pm      *Lunch*
- 1:30 pm      **Utility Integrated Resource Planning with Renewable Energy**  
**Moderator:**    *Marjorie Jean-Pierre, Deputy Program Manager, USEA*  
**Presenters:**    *Dr. M. Masood Ahmad, Director, Integrated Resource Planning, Dominion Resources, Inc.*  
                         *Michael Lee, Director, Integrated Resource Planning Division, Maryland Public Service Commission*
- 3:00 pm      *Break*
- 3:15 pm      **Public Briefing: Renewable Energy Overseas**  
**Moderator:**    *Marjorie Jean-Pierre, Deputy Program Manager, USEA*  
*Individual country presentation of ten to fifteen minutes; one presentation per country*
- 5:00 pm      *Adjourn*
- 6:45 pm      Depart the hotel for dinner
- 7:30          Dinner hosted by PA Consulting Group at Levantes Restaurant  
                         Location: 1320 19th St NW, Washington, DC 20036-1610  
                         Phone:    (202) 293-3244

**Tuesday, September 1, 2009**

- 8:30 am **Pick up delegates at hotel and escort them to USEA**  
**Location:** USEA Conference Room C, 1300 Pennsylvania Avenue, NW, Suite 550, Washington, DC  
**Contact:** Tricia Williams (703) 981-8302 (mobile)
- 9:00 am **Utility Perspectives on Grid Connected Renewable Energy**  
**Moderator:** *Jason Hancock, Senior Program Coordinator, USEA*  
**Presenters:** *Jaspal Deol, Sacramento Municipal Utility District (SMUD)*  
*Julia Hamm, Executive Director, Solar Energy Power Association*  
*Tricia Williams, Senior Program Coordinator, USEA*
- 10:30 am *Break*
- 10:45 am **Project Financing**  
**Moderator:** *Jason Hancock, Senior Program Coordinator, USEA*  
**Presenters:** *Suzanne Perry, Baker & McKenzie*  
*José Galindez, CEO, Solarpack*  
*Hoda Atia Moustafa, The World Bank*
- Topics:**
- Financing Schemes For Renewable Energy, Energy Efficiency And Energy Conservation
  - Carbon Credits For Small Projects
  - Project Financing Requirements
  - Tariff Pricing
  - Incentives
- 12:30 pm *Lunch*
- 1:30 pm **Technology Overview**  
**Moderator:** *Tricia Williams, Senior Program Coordinator, USEA*
- Solar Energy Systems
    - *Scott Sklar, President, The Stella Group*
    - *Ronald Brzezinski, Power Generation, Commercial Manager, GE Energy*
  - Wind Energy and Hydro Power Systems
    - *Ronald Brzezinski, Power Generation, Commercial Manager, GE Energy*
    - *Megan McCluer, Program Manager, USDOE Wind & Hydro Technology Program*
- 3:15 pm *Break*

- 3:30 pm      **Technology Overview (continued)**  
**Moderator:**      *Tricia Williams, Senior Program Coordinator, USEA*
- Cogeneration Systems-
    - *Richard Brent, Solar Turbines*
  - Department of Defense Renewable Programs
    - *Chris Tindal, Deputy Director for Renewable Energy of the Naval Energy Office*
  - Bio-Energy Systems
    - *Sylvain Motycka, MS, MEng, Director of Technology, Solena Group, Inc.*

5:00 pm      **Questions and Final Remarks**

### *Wednesday, September 2, 2009*

8:30 am      **Pick up delegates at hotel and escort them to USEA**  
**Location:** USEA Conference Room C, 1300 Pennsylvania Avenue, NW, Suite 550, Washington, DC  
**Contact:** Tricia Williams (703) 981-8302 (mobile)

- 9:00 am      **Photovoltaic Systems in Grid Connected Applications and Mini-Grids-Technical Solutions, Requirements and Trends**  
**Moderator:**      *Tricia Williams, Senior Program Coordinator, USEA*  
**Presenter:**      *Dr. Ing. Matthias Vetter, Fraunhofer Institute for Solar Energy Systems*
- Systems: small distributed systems; PV plants; PV backup systems; PV in mini-grids
  - Standards and Regulations
  - Power Quality
  - Grid Services
  - Feed-in Tariffs
  - Market Developments
  - Targets of the European PV Industry
  - Vision for Developing Countries

- 9:30 am      **Grid Interconnection Technical Issues and Best Practices**  
**Moderator:**      *Tricia Williams, Senior Program Coordinator, USEA*  
**Presenters:**      *Jason Keyes, Interstate Renewable Energy Council*  
                          *Jaspal Deol, Sacramento Municipal Utility District (SMUD)*  
                          *Tricia Williams, Senior Program Coordinator, USEA*
- Grid Stability and Protection Requirements
  - Pre-Interconnection Studies
  - Power Quality
  - Frequency and Voltage
  - Synchronization
  - Monitoring Provisions
  - Equipment Requirements

- 10:45 am *Break*
- 11:00 am **Contractual Issues and Best Practices**  
**Moderator:** *Tricia Williams, Senior Program Coordinator, USEA*  
**Presenter:** *Dr. Jan Hamrin, Chief Executive Officer of HMW International*  
*Suzanne Perry, Baker & McKenzie*
- Dispute Resolution
  - Power Purchase Agreements
- 12:30 pm **Luncheon Keynote: Application of Programmatic CDM to Renewable Energy Projects in Emerging Market Countries: A Case Study of Methane--to-Markets**  
**Moderator:** *John Hammond, Program Manager, USEA*  
**Presenter:** *Bill Meade, Member of PA's Management Team, PA Consulting Group*  
**Co-author:** *Miguel Franco, Managing Consultant, PA Consulting Group*
- 3:00 pm **Site visit to Methane Gas-to-Electricity, Stafford County Regional Landfill**  
**Location:** Stafford, Virginia  
**Contact:** Andrew Mikel, (540) 658-4592

### **Thursday, September 3, 2009**

- 8:00 am Depart the hotel for site visit
- 8:30 am **Site visit to General Services Administration (GSA) Solar Turbines/ Building Cogeneration**  
**Location:** Washington, DC
- 11:15 am **Site visit to Solar Energy Facilities, Office and Residence of Scott Sklar, The Stella Group, Ltd.**  
**Location:** 706 North Ivy Street, Arlington, VA 22201, Phone: 703-522-1195
- Scott Sklar, The Stella Group's** founder and president will demonstrate his solar home in Arlington, Virginia which has solar water heating, passive solar building features (including double-paned, argon-filled windows, LO/MIT thermal barrier paint in the attic, R38 insulation), energy efficient fixtures and appliances (such as Whirlpool Cabrio washer), 1.2 kW of Solarex polycrystalline photovoltaics and 0.5 kW of UniSolar 'peal-and-stick' modules on a metal-seamed roof on the front porch, and a 24 gel cell battery bank tied to a Xantrex SWPlus inverter. The house boast's Virginia's first direct exchange (geothermal) ground-coupled heat pump. The Stella Group's Virginia office building has 1 kW of UniSolar photovoltaic roofing shingles, a 3.6 kW GridPoint smart battery bank, a 0.5 kW small wind turbine by Southwest Windpower, solar daylight tube, and has the first commercial lease of a 5 kW Plug Power fuel cell (running on recycled industrial hydrogen in canisters) tied to a dedicated Xantrex inverter.
- 12:30 pm *Lunch*

- 1:30 pm      **Site visit to Covanta waste-to-energy facility**  
**Location:** Alexandria, Virginia  
The Alexandria/Arlington Resource Recovery Facility began commercial operation in February 1988 and serves about 300,000 residents of the County of Arlington and the City of Alexandria, which jointly own the site. The facility's three, 325 ton-per-day furnaces process 975 tons of solid waste, generating up to 23 megawatts of renewable energy that is sold to Dominion Virginia Power Company. The facility is located on the smallest site of any of the waste-to-energy plants operated by Covanta Energy.

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### **Friday, September 4, 2009**

- 10:00 am      *Program Evaluations -Location: USEA*
- 12:00 pm      *Lunch*
- 1:30 pm      *Executive Time*

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### **Saturday, September 5, 2009**

Delegates return to their respective countries

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### **Sunday, September 6, 2009**

Delegates return to their respective countries