CLEAN ENERGY SOLUTIONS CENTER

ASSISTING COUNTRIES WITH CLEAN ENERGY POLICY

Greening the Grid: Implementing Renewable Energy Zones for Integrated Transmission and Generation Planning

1 December 2015

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Agenda

1 Welcome & Introductory Remarks

2 Overview of the Clean Energy Solutions Center

➤ **Sean Esterly,** National Renewable Energy Laboratory

3 Presentations

➤ **Daniel Getman,** Geospatial Section Supervisor, National Renewable Energy Laboratory (NREL)

➤ **David Hurlbut**, Senior Analyst, National Renewable Energy Laboratory (NREL)

4 Question and Answer Session

➤ **Jennifer Leisch**, Climate Change Mitigation Specialist, USAID

5 Attendee Survey

Solutions Center Background and Vision

The Clean Energy Ministerial (CEM) launched the Clean Energy Solutions Center in April 2011. The Solutions Center:

- Is one of 13 CEM Initiatives, which include:
  - Global Superior Energy Performance Partnership
  - Super-Efficient Equipment and Appliance Deployment initiative
  - Global Lighting and Energy Access Partnership

- Helps governments design and adopt policies and programs that support the deployment of clean energy technologies

- Has more than 35 partners, including IRENA, IEA, IPEEC, Sustainable Energy for All, Bloomberg New Energy Finance and Leonardo Energy

- Is co-chaired by the U.S. Department of Energy and the Australian Department of Industry.

CLEAN ENERGY MINISTERIAL

Australia   Canada   Denmark   France

India   Indonesia   Italy   Japan   Mexico

South Africa   Sweden   United Arab Emirates   United States

Clean Energy Solutions Center

CleanEnergySolutions.org

Goals

➢ **Serve** as the primary resource for clean energy policy information, assistance and peer learning for governments and government-affiliated practitioners.

➢ **Share** policy best practices, data, and analysis tools across countries.

➢ **Deliver** dynamic services that enable expert assistance, learning, and peer-to-peer sharing of experiences.

➢ **Foster** dialogue on emerging policy issues and innovation across the globe.

Target Audiences

Primary

➢ Government Policy Makers
➢ Advisors

Secondary

➢ Private Sector Companies
➢ Energy Entrepreneurs and Investors
➢ Non-Governmental Organizations
➢ Civil Society
➢ Others Engaged in Clean Energy
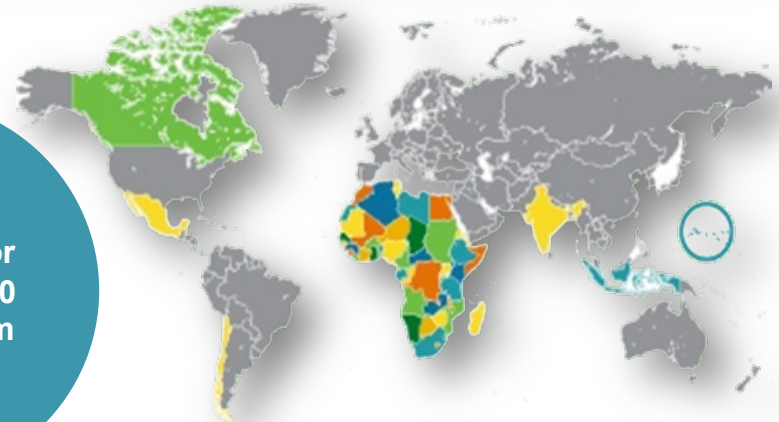
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Connects policymakers to a global network of more than 30 energy experts for quick-response technical assistance on policies and programs relating to:

- Renewable Energy
- Energy Access
- Energy Efficiency
- Smart Grid
- Transportation
- Utilities

Delivered no-cost assistance for more than 160 requests from over 75 countries.

Please submit a question directly at

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Or contact me directly to find out how the Ask-an-Expert program can benefit your work:

Sean.Esterly@nrel.gov | 303-384-7436

Daniel Getman, Geospatial Section Supervisor, NREL

Dan Getman leads the Geospatial Analysis team in the Strategic Energy Analysis Center at NREL in Golden, CO. In this position, Mr. Getman leads a team of geospatial scientists and analysts who support federal, state, local, and international organizations through a variety of energy related analysis activities and the development of applications that provide data exploration, querying, and analysis tools to researchers, industry, and the public. Mr. Getman has over 15 years of experience in spatial analysis, spatial application development, and geoinformatics working in environmental engineering, defense, and for the U.S. Department of Energy at both NREL and Oak Ridge National Laboratory (ORNL). Mr. Getman has a Master's of Science from Purdue University in satellite image analysis and a Bachelor's of Science in Geography from Texas State University.

David Hurlbut, Senior Analyst, NREL

David Hurlbut is an economist and senior analyst with NREL's Strategic Energy Analysis Center. He led NREL's technical support to the Western Governors' Association for the Western Renewable Energy Zone Initiative, which identified renewable energy resource zones throughout the western United States. Prior to joining the lab in January 2007, Dr. Hurlbut was a senior economist with the Texas Public Utilities Commission, conducting oversight over the competitive wholesale power market in ERCOT and policing against market abuse. While at the Texas PUC, he also oversaw the state's highly successful renewable portfolio standard, during which time Texas surpassed California as the state with the most installed wind capacity. He also developed the Competitive Renewable Energy Zone concept in Texas, which has since been used as a model for renewable energy transmission planning in various parts of the country. He is currently leading a project for the Department of the Interior examining clean energy alternatives to the Navajo Generating Station, which is the West's largest coal plant and was initiated by Interior in the late 1960s to provide power for the Central Arizona Project.

Jennifer Leisch, Climate Change Mitigation Specialist, USAID

Jennifer Leisch is a Climate Change Mitigation Specialist in the USAID Office of Global Climate Change, where she supports the U.S. Enhancing Capacity for Low Emission Development Strategies program. Jennifer manages the USAID Greening the Grid partnership, and she directs agency work to account for greenhouse gas emissions reductions as a result of USAID Clean Energy programs. She holds a Ph.D. focused on renewable energy science, and has previously worked in the research and development of advanced solar energy and fuel cell technologies.

Attendee Survey

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- Sean.Esterly@nrel.gov or 303-384-7436