

Introduction to the Global Wind Atlas

20 November 2018

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 - <http://www.youtube.com/user/cleanenergypolicy>

Disclaimer

- *The Clean Energy Solutions Center does not endorse or recommend specific products or services. Information provided in this webinar is featured in the Solutions Center's resource library as one of many best practice resources reviewed and selected by technical experts*

Agenda

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Welcome & Introductory Remarks

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Overview of the Clean Energy Solutions Center

- **Katie Contos**, Clean Energy Solutions Center

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Presentations

- **Oliver James Knight**, Senior Energy Specialist ESMAP, World Bank Group
- **Ides Bauwens**, Co-Founder and Managing Partner, Nazka Mapps
- **Jake Badger**, Head of Section for Resource Assessment Modelling, Technical University of Denmark
- **Søren Bo Krohn Hansen**, Wind Power Consultant
- **Gil Lizcano**, R&D Director, Vortex
- **Brain Ohrbeck Hansen**, Senior Development Engineer, Technical University of Denmark
- **Neil Davis**, Technical Lead, Technical University of Denmark

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Question and Answer Session

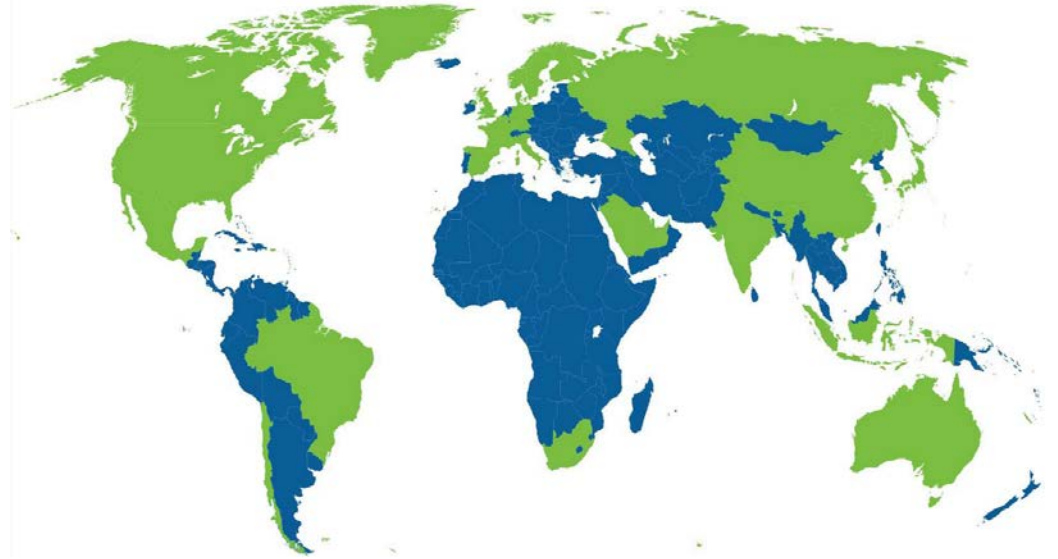
Clean Energy Ministerial

The Solutions Center:

- Launched under the Clean Energy Ministerial (CEM) in 2011

Clean Energy Ministerial:

- A high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy.



90%
of
Clean energy
investment

&

75%
of
Global CO₂
emissions

Solutions Center: Background & Vision

- Multilateral initiative, of the Clean Energy Ministerial, is co-led by the Australian Department of the Environment and Energy, Sweden's Ministry of the Environment and Energy, and the U.S. Department of Energy.
- Additional funding support from Power Africa
- In-kind support from Chile
- The Solutions Center is a unique CEM initiative assisting countries in all regions of the world in strengthening clean energy policies and finance measures
- Supporting transition of clean energy markets and technologies



*US participation & leadership are under review.

Solutions Center: Goals and Audience

Programs and Services

- **Team of 50+ experts from around the globe responded to 350+ requests for policy support from more than 80 countries**
 - Extensive support across Africa, Asia, and LAC
 - Launched support for finance measures in 2015
- **Trained over 15,000 officials through more than 225 webinars and training events with others**
- **Strong & growing partnerships with development agencies and regional and global organizations in delivery of support**
- **Over 5500 resources in curated library for policy makers**

Target Audiences

- **Primary**
 - Government Policy Makers and Advisors
- **Secondary**
 - Private-Sector Companies
 - Energy Entrepreneurs and Investors
 - Non-Governmental Organizations
 - Civil Society
 - Others Engaged in Clean Energy

Solutions Center: Partnerships

More than 35 international partners:

- Climate Technology Center and Network (CTCN)
- ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE)
- Inter-American Development Bank (IDB)
- International Energy Agency (IEA)
- International Partnership for Energy Efficiency Cooperation (IPEEC)
- International Renewable Energy Agency (IRENA)
- Low Emission Development Strategies Global Partnership (LEDS-GP)
- Renewable Energy Policy Network for the 21st Century (REN21)
- Sustainable Energy for All (SEforALL)
- United Nations Environment Programme (UN Environment)
- USAID Power Africa (USAID PA)

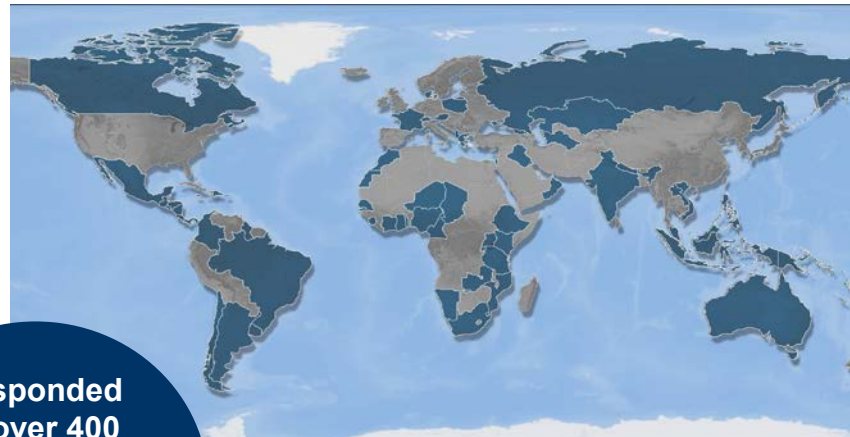


Ask an Expert: Our Experts in Action



We connect you to a global network of energy experts for personalized attention and quick response technical assistance on **strategies, regulations, standards, financial incentives, and energy transition programs** for a broad range of clean energy sectors and technologies including:

- Carbon Capture Utilization & Storage
- Energy Access
- Energy Efficiency
- Renewable Energy
- Smart Grid
- Transportation
- Utilities



Responded to over 400 requests for assistance from over 90 countries.

To request assistance, register on <http://cleanenergysolutions.org/expert>

Oliver James Knight, Senior Energy Specialist, World Bank Group



Oliver Knight is a Senior Energy Specialist at the Energy Sector Management Assistance Program in the World Bank. He leads ESMAP's work on renewable energy resource assessment and mapping, and is closely involved in the World Bank's efforts to scale up deployment of renewable energy globally – with specific current focus on solar power and offshore wind. Oliver holds an MSc in Environmental Technology from Imperial College London, and prior to the World Bank was working for over five years at the UK Department for International Development.

Ides Bauwens, Co-founder & Managing Partner, Nazka Mapps



Ides Bauwens (www.linkedin.com/in/ibauwens) is co-founder and managing partner of Nazka Mapps. Nazka was founded in 2012 with a clear mission: making socially relevant, customized & innovative geo-ICT applications. The Belgian company specializes in interactive maps and location-based services focused on mobility, health and climate. The Global Wind Atlas website has been reimaged from the bottom up by Nazka Mapps, under contract to DTU Wind Energy, and funded by ESMAP. More info at www.nazka.be

Jake Badger, Head of Section for Wind Resource Assessment, Technical University of Denmark



Jake Badger is Head of Section for Wind Resource Assessment at DTU Wind Energy. He has carried out research and development within numerical wind resource assessment methodologies for over 18 years. He works on numerous projects to accelerate the application and dissemination of meteorology modelling and datasets in the wind energy community. His goal is to strengthen co-development and collaboration across specializations to deliver novel research and innovation. He sits on the European Energy Research Alliance Management Board Joint Programme for Wind, coordinating the sub-programme for wind conditions and climatic effects.

Søren Bo Krohn Hansen, Wind Power Consultant



Soren Krohn is a wind power consultant who helped draft the terms of reference for the World Bank / ESMAP support for the Global Wind Atlas. He started his career in computer programming and econometrics. He has been in the wind power business for 24 years. He has worked on wind projects in Europe, North America and 40 developing countries.

Gil Lizcano, R&D Director, Vortex



Gil Lizcano has a background in Physics and PhD in Climatology. Since 1998, when he was involved in Brazilian Wind Atlas, his work has been focused in wind resource and climate modeling at high resolutions. He worked as a wind analyst at Nordex and he was involved in different climate research and applications at the University of Oxford for 6 years.

He joined VORTEX in 2008 where he has been responsible for the innovation and research activities. Gil is leading Vortex modeling team for the provision of mesoscale model layer for the World Bank Global Wind Atlas project.

Brian Ohrbeck Hansen, Senior Development Engineer, Technical University of Denmark



Brian Ohrbeck Hansen is part of the Resource Assessment Modelling section of DTU Wind Energy. His role is mainly as project manager for development projects associated with the WAsP software suite. This includes facilitating and coordinating the collaboration between scientists and software developers, leading to the implementation of scientific research in software. Brian has e.g. been responsible for the successful developments and releases of the Global Wind Atlas 2 as well as the WAsP 12 and WAsP Engineering 4 software packages.

Neil Davis, Technical Lead, Technical University of Denmark



Neil Davis is the Technical Lead for Wind Resource Assessment Applications in the Resource Assessment Modeling section of the Department of Wind Energy at the Technical University of Denmark. He has a MSc in Atmospheric Science from North Carolina State University, and a PhD from DTU Wind Energy. Since finishing his PhD, he has worked extensively on wind atlas applications including all versions of the Global Wind Atlas and the upcoming New European Wind Atlas.

Any Questions?

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Question and Answer Session

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World Bank Group**

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