

Deploying Smart and Strong Power Grids: Best Practices from Austria, Ireland and Around the World

May 6, 2015

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Clean Energy
Solutions Center

- **Tim Reber**, National Renewable Energy Laboratory

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- **Bo Normark**, Senior Advisor, Power Circle
- **Helfried Brunner**, AIT-Austrian Institute of Technology GmbH, Thematic Coordinator Power System Planning and Operation
- **Seamus Power**, Senior Engineer, EirGrid

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Solutions Center Background and Vision

CleanEnergySolutions.org

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.



Australia



Denmark



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.

Primary

- Government Policy Makers
- Advisors

Secondary

- Private Sector Companies
- Energy Entrepreneurs and Investors
- Non-Governmental Organizations
- Civil Society
- Others Engaged in Clean Energy

Target Audiences

Ask-an-Expert: Our Experts in Action

CleanEnergySolutions.org

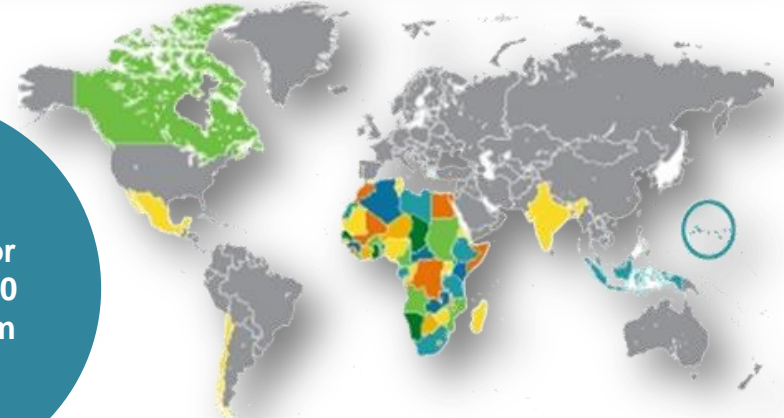


Connects policymakers to a global network of more than 30 energy experts for quick-response technical assistance on policies and programs relating to:

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



Delivered no-cost assistance for more than 120 requests from over 60 countries.



Please submit a question directly at
cleanenergysolutions.org/expert

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

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

Bo Normark, Senior Advisor, Power Circle



Bo Normark, the chair of ISGAN Annex 6, is co-chair of the Energy Platform of the European Council of Academies of Applied Sciences, Technologies and Engineering. He is also vice chair of the National Council for Smart Grids in Sweden and board member of the Swedish National Grid Company, the Swedish Transmission System Operator (TSO). Normark is a Senior Consultant to KIC InnoEnergy. Previously, Normark worked for ABB in power transmission equipment including advanced smart transmission grid technologies such as high-voltage DC (HVDC), flexible AC transmission (FACTS) and high-voltage cables.

Helfried Brunner, AIT-Austrian Institute of Technology GmbH, Thematic Coordinator Power System Planning and Operation



Helfried Brunner studied Electrical Engineering and Information Technology, specializing on Power Engineering at the University of Technology Graz and Innovation and Technology Management at the University for Applied Sciences Technikum Vienna. Since 2004, he has been with the Austrian Technology of Technology, and he is currently thematic coordinator for power system planning and operation and responsible for related projects on this topic. Helfried is AIT representative within the European Energy Research Alliance (EERA) Joint Program on Smart Grids and Technical Coordinator of the EERA Integrated Research Program ELECTRA. He is a member of the board of the National Technology Platform Smart Grids Austria and a lecturer in the field of electricity networks at the University of Technology Vienna and the University for Applied Sciences Technikum Vienna.

Séamus Power, Senior Engineer, EirGrid



Séamus Power works as a Senior Engineer in the Sustainable Power Systems team of the Operations department in EirGrid, the Irish TSO. As part of his work on the DS3 Programme, he conducts technical analysis and develops Control Centre operational policies for power system operation with very high penetrations of wind power. He has a Bachelor of Electrical Engineering from the National University of Ireland and a Master of Science in Electrical Power Systems from the University of Bath.

Question and Answer Session

Please submit any questions through the “Question Pane” of the GoToWebinar panel

Questions



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THANK YOU!

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- For more information on the “Ask-an-Expert” program please email me directly:
 - Sean.Esterly@nrel.gov or 303-384-7436