



Summer Academy 'Energy and the Environment' Topic | 2014

As climate change is steadily progressing, governments around the world are committing to ambitious targets to reduce greenhouse gases and boost the development of renewable energy sources. The German *Energiewende*, China's record-breaking investments in renewable resources, the tripling of wind power capacity in the United States:

The energy transition seems well on its way. At the same time, new market forces have emerged: The economic downturn has slowed down investments in RES, while the availability of shale gas has resulted in a cheap and plentiful energy supply, reducing the urgency

and incentive to develop renewable energy sources. Industrial development has helped lift hundreds of millions of people above the poverty line, but also accounts for an unprecedented spike in CO₂ emissions. And even in Germany, land of the energy transition, coal consumption has reached a record high.

In this volatile energy landscape, has the energy transition lost momentum? The 2014 Academy offers an interdisciplinary analysis of the progress and achievements, and of the challenges of further deployment and market integration of renewable energy.

Energy Transition 2.0: Further Deployment and Integration of Renewable Energy

20 - 25 July 2014 | Berlin | Germany

Participants convene in Berlin and start with an introductory workshop (Sunday). The Summer Academy will review the state of climate change and international policy (Monday) and provide an analysis of (the underlying drivers of) the global energy landscape (Tuesday). A review of the German Energiewende forms the basis for an analysis of global renewable energy development and of the challenges that present themselves with advanced de-

ployment and integration, focusing on energy storage in particular (Wednesday). Next: the liberalization and internationalization of electricity markets, and the ways in which their accommodation capacity for renewable energy can be enhanced (Thursday). Finally, the Summer Academy will provide an interdisciplinary analysis on off-shore wind energy (Friday). As usual, the Academy will end with a festive barbecue.





Monday | 21 July

Climate Change: Global Policy and Mitigation Efforts



Tuesday | 22 July From Conventional to Renewable: Trends and Opportunities on the Energy Market

9:45 - 10:15	The State of Climate Change Today: Review and Outlook	9:30 - 10:00	Trends on the Energy Market
	Dr. Bill Hare CEO Senior Scientist Climate Analytics		Nicole Kaim Head of Office Weltenergierat World Energy Council
10:15 - 10:30	10:30 Discussion round		Discussion round
10:30 - 11:00	International Climate Policy:	10:15 - 10:45	Shale Gas: Market Effects, Legal and Environmental Considerations
	Current Architecture and Future Policy Design		Giuseppe Nastasi Legal Advisor Milieu Ltd.
	Dr. Francesco Sindico Director of the Strathclyde Centre for	10:45 - 11:00	Discussion round
	Environmental Law and Governance University of Strathclyde	11:00 - 11:15	Coffee break
11:00 - 11:15	Discussion round	11:15 - 11:45	The Place for Renewables in an Oil Sands Rich Province:
11:15 - 11:45	Coffee break		Alberta's Energy Policy
11:45 - 12:15	11:45 - 12:15 Climate Justice: Accounting for the Impact on Developing Countries		Prof. Sharon Mascher Faculty of Law University of Calgary
	Michael Hoppe Risk Assessment and Management for Adaptation to	11:45 - 12:00	Discussion round
	Climate Change (Loss & Damage) Deutsche Gesellschaft für	12:00 - 12:30	The Role of Gas on the Way to a Renewable Energy System
	Internationale Zusammenarbeit (GIZ) Gmbh		Dr. Nadine Haase Public Affairs GasUnie
12:15 - 12:30	Discussion round	12:30 - 12:45	Discussion round
12:30 - 13:30	Lunch break	12:45 - 13:45	Lunchbreak
		13:45 - 14:15	The Industrial Rise of China: Balancing Economic and Environmental Policy
13:30 - 14:00	Climate Policy in the United States: Drivers and Deterrents		David Lunsford Consultant Energy Environment Solutions
	Mark Scorsolini Energy Trader Green Products PSEG	14:15 - 14:30	Discussion round
14:00 - 14:15	Discussion round	14:30 - 14:45	The Role of Nuclear on the Way to Efficiency and Renewable Integration in China
14:15 - 14:45	EU Climate Policy: National Progress towards 2020 and Beyond		Chunhong Sheng Environmental Research Department Free University Berlin
	Natascha Trennepohl Policy Department Eclareon GmbH	14:45 - 15:00	Discussion round
14:45 - 15:00	Discussion round	15:00 - 15:15	Coffee break
15:00 - 15:30	Coffee break	15:15 - 15:45	Opportunities, Barriers and Conditions for a Global Transition to
15:30 - 16:15	International Emissions Trading: Lessons from the EU ETS		100 % Renewable Energy
	David Lunsford Consultant Energy Environment Solutions		Prof. Tanay Sıdkı Uya Professor of Renewable Energy at Marmara
16:15 - 16:30	Discussion round		University Head of the Faculty of Engineering Chairman of Eurosolar Turkey
16:30 - 16:45	Conclusion of the day	15:45 - 16:00	Discussion round
19:00	Official Opening of the Summer Academy 2014 over the rooftops of Berlin	16:00 - 16:30	Local Solutions to Global Challenges:Offgrid-Energy Access in Developing Countries
	Roofgarden House of Weekend Alexanderstr. 7 10178 Berlin		Thomas Gottschalk General Manager Mobisol
		16:30 - 16:45	Discussion round Conclusions of the day



Wednesday | 23 July Renewable Energy: Challenges and Solutions for Further Deployment



Thursday | 24 July Electricity Markets in Transition: From Liberalization to Renewable Energy Integration

9:45 - 10:15	Energiewende: A Review of the German Energy Transition	9:45 - 10:15	Electricity Markets in Transition: Paving the Way for Renewables
	Klaus Müschen Head of Climate Protection and Energy German		Dr. Thies F. Clausen Agora Energiewende
	Federal Environment Ministry (BMUB)	10:15 - 10:30	Discussion round
10:15 - 10:30	Discussion round	10:30 - 11:00	Shaping the Electricity Market of the Future: Key Recommendations
10:30 - 11:00	Closing the Concensus Gap: RES Planning and Public Participation		Prof. Christian Hey German Advisory Council on the Environment SRU
	Ralf Dunker 100 prozent erneuerbar stiftung	11:00 - 11:15	Discussion round
11:00 - 11:15	Discussion round	11:15 - 11:45	Coffee break
11:15 - 11:45	Coffee break	11:45 - 12:15	International Grid Integration: Enhancing System Stability and Flexibility
11:45 - 12:15	Ensuring Renewable Electricity Investment: Long-Term Remuneration Schemes		Dr. Nadia Horstmann Head of Section International Energy
	Katherina Grashof IZES Institut für ZukunftsEnergieSysteme		Coordination Bundesnetzagentur
12:15 - 12:30	Discussion round	12:15 - 12:30	Discussion round
12:30 - 13:00	Financing Europe's Energy Transformation		
	Dr. Constanze Adolf Director of Brussels Office Green Budget Europe	12:30 - 13:30	Lunch break
13:00 - 13:15	Discussion round		
13:15 - 14:20	Lunch break	13:30 - 14:00	Interconnectors: Towards an Integrated and Renewable Electricity Market
	Afternoon: Focus on Energy Storage		Gert Schwarzbach Head of Unit Interconnectors 50Hertz
14:20 - 14:40	Energy Storage Technologies: Current State and the Road Ahead	14:00 - 14:15	Discussion round
	Jens Vollprecht Partner and Lawyer Becker Büttner Held	14:15 - 14:45	Effective Market Integration:
14:40 - 14:50	Discussion round		The Question of RES Policy Harmonisation in the EU
14:50 - 15:00	Global Energy Storage Demand for a 100% Renewable Electricity Supply		Dr. Paul Lehmann Helmholtz Centre for Environmental Research
	Guido Pleßmann Reiner Lemoine Institut	14:45 - 15:00	Discussion round
15:00 - 15:10	Discussion round	15:00 - 15:30	Coffee break
15:10 - 15:30	Coffee break	15:30 - 16:00	Market Stability and Security of Supply:
15:30 - 15:50	Energy Storage: The Potential of Residential Photovoltaic Battery Systems		Capacity Mechanisms and Alternatives
	Johannes Weniger University of Applied Sciences Berlin		Dr. Paul Lehmann Helmholtz Centre for Environmental Research
15:20 - 15:30	Discussion round	16:00 - 16:15	Discussion round
15:30 - 16:00	Hydrogen Energy:	16:15 - 16:30	Conclusions of the day
	Conversion of Renewable Electricity to Other Energy Sectors		
	Filip Smeets General Manager Hydrogenics Europe		
16:00 - 16:20	Discussion round Conclusions of the day		



Off-shore Wind Energy | Vision and Policy

Friday | 25 July Integration of Energy Infrastructure: Off-shore Wind Energy in the North and Baltic Sea

9:45 - 10:15	Regional Opportunities and Challenges:		
	Off-shore Wind in Mecklenburg-Vorpommern		
	Ministry for Energy, Infrastructure and Regional Development of		
	Mecklenburg-Vorpommern		
10:15 - 10:30	Discussion round		
10:30 - 11:00	Off-shore Wind: Policy Outlook		
	Dr. Camillla Bausch Senior Management & Fellow Ecologic Institute		
11:00 - 11:15	Discussion round		
11:15 - 11:30	Coffee break		
Transmission System Operators The Distribution Challenge			
11:30 - 12:00	Off-shore Wind Connection: Grid-related Challenges in the North Sea		
	Wilfried Breuer Managing Director TenneT Offshore GmbH		
12:00 - 12:15	Discussion round		
12:15 - 12:45	$Transport of Offshore \ Wind \ Energy in the \ German \ High \ Voltage \ Transmission \ Grid$		
	Dr. Stefan Fenske Strategic Grid Planning 50 Hertz		
12:45 - 13:00	Discussion round		
13:00 - 14:00	Lunch break		
Business and Le	gal: Opportunities and Risks on the Off-shore Market		
14:00 - 14:30	A Business Perspective: Opportunities and Risks of Off-shore Wind		
	Manfred Dittmer Head of Regulatory Affairs DONG Energy		
14:30 - 14:45	Discussion round		
14:45 - 15:15	The Role of the Legal Framework on Off-shore Development		
	Becker Büttner Held		
15:15 - 15:30	Discussion round		
15:30 - 15:45	Coffee break		
15:45 - 16:30	International Law and Off-shore Wind Development		
	Dirk Hanschel Reader in Energy Law University of Aberdeen		
16:30 - 17:00	Panel Discussion Maximising the Potential of Off-shore Wind		
	Moderated by Prof. Michael Rodi		
17:00 - 1	Conclusions of the day		



Summer Academy 'Energy and the Environment' 11 years of international cooperation

2004	Transition from Nuclear Energy to Renewable Energy Sources Greifswald, Germany
2005	Implementing Kyoto - Chances and Challenges for Transition Countries Irkutsk, Russia
2006	Emissions Trading in Europe – Review and Preview Greifswald, Germany
2007	Bridging the Divide in Global Climate Policy: Strategies for Enhanced Participation and Integration Budapest, Hungary
2008	Realizing the Paradigm Shift towards Energy Sustainability: Greifswald, Germany
2009	Bridging the Divide in Global Climate Policy 2.0: From Bali to Copenhagen Amsterdam, the Netherlands
2010	Transnational Energy Grids: Challenges on the Way to Sustainable Energy Transmission Greifswald, Germany
2011	Economic Opportunities and Drivers on the Way to a Low-Carbon Society Guildford and London, the United Kingdom
2012	Energy Transition: Expansion and Integration of Renewable Energy Sources Berlin, Germany
2013	Climate Change and the Energy Challenge: Energy Efficiency and Renewables Brussels, Belgium
2014	Energy Transition 2.0: Further Deployment and Market Integration of Renewable Energy Berlin, Germany



Applications

The Summer Academy 2014 'Energy Transition 2.0: Further Deployment and Market Integration of Renewable Energy' is open to 25-30 participants working within the field of energy and the environment, or with a specific interest in the annual topic of the Academy. Applicants must have relevant experience, and are selected based on their disciplinary match to the program, as well as academic/professional achievements. Participants will have the opportunity to present their work or research during the Academy.

Application forms are available on our site: www.ikemsummeracademy.de/applications. Please feel free to contact us at summeracademy2014@ikem-online.de

single

shared

Without accommodation: € 350

Business € 1.750

Government NGO € 1.450

€1,250

PhD € 1,150 Students €.850

Students € 700



Prof. Michael Rodi Founder of the Summer Academy

IKEM | Institute for Climate Protection, Energy and Mobility

Organization Anika Nicolaas Ponder **Publications and Events**

Berlin

Magazinstraße 15-16 | D-10179 | Berlin | Germany

Tel. + 49 (0) 30 408 187 015 Fax + 49 (0) 30 408 187 029

Greifswald Domstraße 20a

17489 Greifswald

Tel. + 49 (0) 3834/862-100 + 49 (0) 3834/862-114

summeracademy2014@ikem-online.de www.ikemsummeracademy.de

www.ikem-online.de

ERNST MORITZ ARNDT UNIVERSITÄT GREIFSWALD

