



(EM) POWERING the Future

Contours of Tomorrow's Energy System

**6th St. Gallen Forum
for Management of Renewable Energies**

May 21st & 22nd, 2015 – Olma Messen St.Gallen

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(EM)POWERING the Future

Contours of Tomorrow's Energy System



The rise of solar and wind power is profoundly transforming Central European energy markets. Policy makers in different countries are reacting by revising energy policies, and energy companies along the value chain are responding by readjusting their business models. In combination with the renewed push for adequate climate policies, the balance between centralized and decentralized energy solutions is moving towards a new equilibrium. However, the current transition is characterized by a number of unanswered questions that will be addressed at this year's Forum. Under the motto **(EM)POWERING the Future**, the 6th St.Gallen Forum for Management of Renewable Energies will have a special focus on the following questions, which touch upon the *contours of tomorrow's energy system*:

- How are utility companies repositioning themselves in a **changing business environment**?
- How can **institutional investors** contribute to financing the 'Energiewende'?
- What is the outlook for the global **solar industry** after grid-parity?
- What are the current developments and challenges with **energy storage**?
- How can **e-mobility** be unlocked in Switzerland and beyond?
- What are the latest energy preferences of **Swiss customers**, and how can they inform **innovative business models**?
- How is the climate policy debate being shaped by cultural factors and what are the implications for a **successful energy transition**?
- How will **smart buildings** shape tomorrow's energy system?

These and further questions related to the opportunities and challenges of a transforming energy sector will be addressed by high-level experts from industry, investing, academia and politics. As in previous years, the St.Gallen Forum will also provide exclusive insight into cutting-edge research that has been conducted by the Center for Energy Innovation, Governance & Investment at the University of St.Gallen and its partners.

Once again, this year's Forum offers valuable networking opportunities for energy professionals. Our pre-conference dinner connects stakeholders from the energy sector in an inspiring atmosphere. Our workshops provide you with an excellent opportunity to discuss the latest trends in renewable energy management. The 6th St.Gallen Forum will offer strategic insights for decision makers who are shaping the future energy system.

Welcome to the Forum 2015.

Prof. Dr. Rolf Wüstenhagen & Team

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Programme | Thursday, May 21st, 2015

18.30 **Apéro & Dinner**
(Apéro with kind support of A.T. Kearney)

Dinner Speech

How Culture Shapes the Climate Change Debate

Prof. Andrew J. Hoffman, Ph.D., Holcim (US) Professor of Sustainable Enterprise, University of Michigan.

Hosted by Prof. James W. Davis, Ph.D., Center for Energy Innovation, Governance and Investment, University of St. Gallen

Side Events

Meet the author

Prof. Andrew Hoffman will sign his brand new book 'How Culture Shapes the Climate Change Debate' (Stanford University Press) exclusively at the ZURICH exhibition stand.

Friday, May 22nd, 2015
10.30 – 11.00



Feel the Drive



Three times more efficient and 80 kilograms less CO₂ per 100 kilometers – the life cycle assessment of a lorry refitted by E-Force convinced the jury of the **Zurich Climate Prize Switzerland and Liechtenstein**. Therefore, the 2nd price was awarded to E-Force. **Don't miss out to have a look during our breaks, and feel the drive at a test run.**

Friday, May 22nd, 2015
08.30 – 14.00

Programme | Friday, May 22nd, 2015*

- 08.30 Registration & Coffee
- 09.00 **Welcome**
Prof. Dr. Thomas Bieger, President, University of St. Gallen
- 09.10 **(EM)POWERING the Future – Contours of Tomorrow's Energy System**
Prof. Dr. Rolf Wüstenhagen, Center for Energy Innovation, Governance and Investment (EGI-HSG) & Chair for Management of Renewable Energies, University of St. Gallen
- 09.30 **Current Trends in PV Markets & Regulatory Frameworks for the European Solar Market Transition**
Dr. James Watson, CEO, European Photovoltaic Industry Association
- 09.45 **Repositioning Large Utility Companies in a Changing Energy Environment – the Case of E.ON and beyond**
 - Dr. Matthias Fawer, Sustainability Analyst, Notenstein Privatbank AG
 - Dr. Roland Hengerer, Senior Research Analyst, RobecoSAM AG
 - Gerard Reid, Founder and Managing Partner, Alexa Capital LLP**Moderator:** Dr. Joachim Müller-Soares, Editor-in-Chief, BIZZ energy today
- 10.30 Coffee Break
- 11.00 **Unlocking E-Mobility in Switzerland & Winners of the Zurich Climate Prize 2014**
Joachim Masur, Chief Executive Officer, Zurich Switzerland
- 11.20 **Current Developments and Challenges in Energy Storage**
Dr. Martin Näf, Department Head Automation, Corporate Research, ABB Switzerland
- 11.35 **The Customer's Voice: New Evidence about Energy Preferences in Switzerland**
Anna Ebers, Ph.D., Chair for Management of Renewable Energies, University of St. Gallen
Dr. Ladina Caduff, Head Sustainability, Raiffeisen Switzerland
- 11.50 **Interactive Q&A-Session**
moderated by Joachim Müller-Soares, Editor-in-Chief, BIZZ energy today
- 12.15 Networking Lunch

*All morning sessions will be translated into German



13.45 **Workshops**

- 1 **Promising Smart Grid Business Models** (*English*)
Prof. Dr. Moritz Looock
- 2 **Gebäudeintegrierte Photovoltaik: Solar- und Baubranche vor dem Wandel?** (*German*)
Prof. Dr. Stefanie Hille & Hans C. Curtius
- 3 **Wind Energy Investment Destinations: Established or Emerging Markets?** (*English*)
Yuliya Karneyeva
- 4 **Das Zeitalter von Negativzinsen: Eine Einstiegsgelegenheit für institutionelle Investoren in erneuerbare Energien?** (*German*)
Anna Ebers, Ph.D. & Sarah Salm
- 5 **Change Management in turbulenten Märkten: Was kann die Energieindustrie vom Wandel in anderen Branchen lernen?** (*German*)
Gieri Hinnen
- 6 **Social Acceptance of Wind & Hydropower** (*English*)
Dr. Andrea Tabi

15.45 Coffee Break

16.00 **(EM)POWERING the Future? The Swiss Energy Strategy 2050 and the Role of the Building Sector in Tomorrow's Energy System**

Panel Discussion in collaboration with the expert conference ENERGIE + BAUEN **

- Roland Eberle, Member of the Council of States, Swiss People's Party
- Josias Gasser, Member of the National Council, Green Liberal Party
- Wolfgang Schwarzenbacher, CEO, Cofely AG
- Stefan Truog, Visiobau AG

Moderator: Urs Wiedmer, SRF

17.00 **Closing Remarks**

Dr. Peter Richner, Swiss Fed. Lab. for Materials, Testing and Research (EMPA)
Prof. Dr. Rolf Wüstenhagen, University of St.Gallen

**Panel Discussion will be translated into English

Workshops

Workshop I Promising Smart Grid Business Models *(in English)*

Within a large, innovative EU-funded research project software companies, technology providers, project developers, utilities and researchers from Norway to Malta are working together to develop EMPOWER: local electricity retail markets for prosumer smart grid power services. The aim of the project is to get EMPOWER to work, to develop new business models and to spread the idea so that many more companies and prosumers join in, thereby transforming the dominant business models in the energy industry. EMPOWER welcomes new partnerships and alliances with interested companies and individuals. For this purpose the workshop is designed as follows: First, we will provide an introduction to what EMPOWER is about and what it is designed to achieve. Second, we will describe the conceptual challenges and possible solutions for business model innovation in the field of local electricity retail markets for prosumer smart grid power services. Third, we are going to introduce the «newtility» project, an HSG-based business model innovation for EMPOWER. As the final step we will engage in an open discussion with participants to collect feedback and identify joint opportunities for further collaboration. We encourage would-be participants to register early as we anticipate significant interest in this workshop. In addition, every registrant will receive the workshop minutes (containing leads for cooperation) in a timely manner after the workshop finishes.

- Moderation** ■ Prof. Dr. Moritz Loock, University of St.Gallen
- Speakers** ■ Prof. Dr. René Bohnsack, University of Amsterdam Business School
■ Prof. Dr. ing. Bernt A. Bremdal, Smart IO Norway
■ Marvin Kirschner & Calebe Künzle, The Newtility Project, St.Gallen
- Venue** ■ Room 3.1 (first floor)



Workshop 2 Gebäudeintegrierte Photovoltaik – Solar- und Baubranche

vor dem Wandel? *(auf Deutsch)*

«Kraftwerk statt nur Fassade», «Win-win für Umwelt und Ästhetik» – jüngste technische Entwicklungen lassen diese Slogans näher an die Wirklichkeit rücken. Die dichtbesiedelte Schweiz bietet optimale Voraussetzungen um das Zugpferd des Aufschwungs der gebäudeintegrierten Photovoltaik (BIPV) zu werden. Noch aber liegt die Marktdurchdringung der BIPV im Solarmarkt im niedrigen einstelligen Prozentbereich. Verschiedene sozioökonomische Barrieren verhindern ein grösseres Wachstum von dach- und fassadenintegrierten Anlagen. Diese sollen im Workshop mit Branchenexperten wie Architekten und Installateuren sowie Wissenschaftlern diskutiert und Möglichkeiten ihrer Überwindung ergründet werden. Zuvor werden neueste technische Errungenschaften aus der PV-Forschung präsentiert.

Moderation ■ Prof. Dr. Stefanie Hille & Hans Christoph Curtius, Universität St.Gallen

Referierende ■ Cosima Bader, Universität St.Gallen

■ Dr. Hartmut Nussbaumer, Institut für Energiesysteme und Fluid-Engineering (IEFE), ZHAW Winterthur

Weitere ■ Thomas Ammann, HEV Schweiz ■ Stefan Merz, Helion Solar Ost

Experten ■ Andreas Schöni, Solaxess SA ■ Iwan Thür, Gasser Fassadentechnik AG

■ Stefan Truog, visiobau architekturbüro

Ort ■ Raum 9.1.2, Rest. Rosso (Erdgeschoss)

Workshop 3 Wind Energy Investment Destinations: Established or Emerging Markets? *(in English)*

Wind energy investment is becoming extremely international. Top investment destinations for European companies include many countries of the European Union and Eastern Europe, as well as overseas. Wind resources are excellent in many of these countries, but not every country offers attractive investment opportunities. While feed-in tariffs or green certificates may be appealing, regulatory frameworks or slow permitting processes may pose a challenge. Moreover, financing schemes vary depending on the region. Finally, local infrastructure and business culture can strongly affect the success of projects. In this workshop we will discuss potential destinations for wind projects and describe the critical factors to consider when making international investments such as regulations, infrastructure, permitting and local culture. To inspire participants to engage in a fruitful discussion, several experts who represent different stakeholders in the wind energy sector will share their experiences of dealing with wind projects in Europe and beyond.

Moderation ■ Yuliya Karneyeva, University of St.Gallen

Speakers ■ Dr. Jan Bodenmann, CFO, Swisspower Renewables AG

■ John O'Brien, Regional Technical Advisor on Climate Change Mitigation, UNDP

■ Dominique Darne, President Economic Committee, French Wind Energy Assoc.

■ Massimo Derchi, CEO, ERG Renew SpA

■ Véronique Werner, Procurement Manager Renewable Energies, BKW Energie AG

Venue ■ Room 2.0 (ground floor)

Workshop 4 Das Zeitalter von Negativzinsen: Eine Einstiegsgelegenheit für institutionelle Investoren in erneuerbare Energien? *(auf Deutsch)*

Welche Rolle spielen Banken, Versicherungsunternehmen und Pensionskassen als Investoren in Erneuerbare Energien? In diesem Workshop werden Referenten aus führenden Schweizer Finanzinstitutionen Einblicke in ihr Vorgehen bei Investitionen in Erneuerbare Energien geben. Ein besonderer Fokus wird neben den Gründen der Investitionen auf Fragen des Risiko-Rendite-Verhältnisses sowie Technologiepräferenzen gelegt. Die Diskussion der Erfahrungen verschiedener Finanzinstitutionen wird ergänzt durch aktuelle wissenschaftliche Erkenntnisse aus der Forschung der Universität St.Gallen, die sich auf die Haupttreiber und Barrieren bei zunehmendem Investitionsvolumen beziehen. Die Diskussion von Investitionsbarrieren wird sich insbesondere auf die Auswirkungen von Regulierung und politischer Unsicherheit konzentrieren.

Moderation ■ Anna Ebers, Ph.D. & Sarah Salm, Universität St.Gallen

Referierende ■ Dr. Matthias Gysler, Chefökonom Bundesamt für Energie BFE

■ Tom Osterwalder, stv. Geschäftsführer, Zurich Invest AG

■ Dr. Tobias Reichmuth, CEO & Mitgründer, SUSI Partners AG

Ort ■ Raum 3.0 (Erdgeschoss)

Workshop 5 Change Management in turbulenten Märkten: Was kann die Energieindustrie vom Wandel in anderen Branchen lernen? *(auf Deutsch)*

Die Energie-Branche durchläuft einen fundamentalen Wandel: Alte Weisheiten sind heute Dummheiten, einst hochprofitable Geschäftsmodelle sind die neuen Wertvernichter und gestrige Kunden sind die heutigen Konkurrenten. Wie können sich Organisationen, die in den letzten 50 Jahren in stabilen Umfeldern gross geworden sind, dem neuen und turbulenten Umfeld anpassen? Wie können alte Denk- und Handlungsmuster überwunden werden? Oder anders gesagt: Wieso ändern sich Organisationen – und was können Manager dazu beitragen? Der Workshop fokussiert auf Change Management in der Energiebranche. In einem ersten Teil diskutieren zwei Strategie-Experten aus der Airline- und der Energiebranche – beides Industrien, die sich zurzeit in einem tiefgehenden Wandel befinden – ihre Erfahrungen. Die daraus folgenden Rückschlüsse aus der Praxis werden anschliessend mit neuen Forschungserkenntnissen gespiegelt. Der dritte Teil beinhaltet die praktische Umsetzung dieser Erkenntnisse: Gemeinsam mit einem Experten für Strategie-Kommunikation wird ein Action-Plan für erfolgreiches Change Management in der Energiebranche entworfen.

Moderation ■ Gieri Hinnen, Swiss Int. Air Lines & Universität St. Gallen

Referierende ■ Florian Dehne, Head of Corporate Development, Swiss Int. Air Lines

■ Samuel Enggist, Leiter Sales und Marketing, Repower AG

■ Andri Hinnen, Gründer, Zense GmbH

Ort ■ Hörsaal 9.0 A/B

Workshop 6 Social Acceptance of Wind & Hydropower *(in English)*

Since the energy transition strategy ultimately needs to be embedded in regional social networks, this workshop is designed to pursue an integrated approach by looking into the potential contribution of energy regions towards the energy transition. It addresses an emerging empirical phenomenon: namely, the social acceptance of new energy infrastructure, with special focus on hydropower plants and wind energy. In this workshop we intend to put the emphasis on the social acceptance of siting decisions by local stakeholders, particularly residents and local authorities, and to discuss the most important elements of acceptance / resistance based on current experience.

Moderation ■ Dr. Andrea Tabi, University of St.Gallen

Speakers ■ Markus Geissmann, Head of Wind Energy Department,
Swiss Federal Office of Energy

■ Dr. Catherine Gross, Fenner School of Environment & Society,
Australian National University

■ Pascal Steingruber, Consultant, Association for environmentally sound energy
(naturemade)

Venue ■ Room 2.1 (first floor)



Speakers



- **Prof. Dr. Thomas Bieger** President, University of St.Gallen
- **Dr. Jan Bodenmann** CFO, Swisspower Renewables AG
- **Prof. Dr. René Bohnsack** University of Amsterdam Business School



- **Prof. Dr. ing. Bernt A. Bremdal** Smart IO Norway
- **Dr. Ladina Caduff** Head Sustainability, Raiffeisen Switzerland
- **Dominique Darne** President of the Economic Committee, French Wind Energy Association



- **Prof. James W. Davis, Ph.D.** Center for Energy Innovation, Governance and Investment, University of St.Gallen
- **Florian Dehne** Head of Corporate Development, Swiss Int. Air Lines
- **Massimo Derchi** CEO, ERG Renew SpA



- **Roland Eberle** Member of the Council of States, Swiss People's Party
- **Anna Ebers, Ph.D.** Chair for Management of Renewable Energies, University of St.Gallen
- **Samuel Enggist** Head of Sales and Marketing, Repower AG



- **Dr. Matthias Fawer** Sustainability Analyst, Notenstein Privatbank AG
- **Josias Gasser** Member of the National Council, Green Liberal Party
- **Markus Geissmann** Head of Wind Energy Department, Swiss Federal Office of Energy



- **Dr. Catherine Gross** Fenner School of Environment & Society, Australian National University
- **Dr. Matthias Gysler** Head of Energy Policy, Swiss Federal Office of Energy
- **Roland Hengerer, Ph.D.** Senior Research Analyst, RobecoSAM AG

Detailed CVs can be found on
www.hsg-energieforum.ch



- **Andri Hinnen** Founder, Zense GmbH
- **Prof. Andrew J. Hoffman, Ph.D.** Holcim (US) Professor of Sustainable Enterprise, University of Michigan
- **Joachim Masur** Chief Executive Officer, Zurich Switzerland



- **Dr. Joachim Müller-Soares** Editor-in-Chief, BIZZ energy today
- **Dr. Martin Näf** Department Head Automation, Corporate Research, ABB Switzerland
- **Dr. Hartmut Nussbaumer** Lecturer, Institute of Energysystems and Fluid Engineering, ZHAW Winterthur



- **John O'Brien** Regional Technical Advisor on Climate Change Mitigation, UNDP
- **Tom Osterwalder** CFA, Head Investments & Propositions, Director, Zurich Invest AG
- **Dr. Tobias Reichmuth** CEO & Co-Founder, SUSI Partners AG



- **Gerard Reid** Founder and Managing Partner, Alexa Capital LLP
- **Wolfgang Schwarzenbacher** CEO, Cofely AG
- **Pascal Steingruber** Project leader and consultant, Association for environmentally sound energy – VUE naturemade



- **Stefan Truog** Visiobau AG
- **Dr. James Watson** CEO, European Photovoltaic Industry Association
- **Véronique Werner** Procurement Manager renewable energies, BKW Energie AG



- **Urs Wiedmer** Moderator, Swiss Broadcasting Corporation (SRF)
- **Prof. Dr. Rolf Wüstenhagen** Center for Energy Innovation, Governance and Investment (EGI-HSG) & Chair for Management of Renewable Energies, University of St.Gallen

Host

Good Energies Chair for Management of Renewable Energies: the first of its kind at a leading European business school – goodenergies.iwoe.unisg.ch

In cooperation with EGI-HSG – Center for Energy Innovation, Governance & Investment www.egi.unisg.ch, partner of SCCER CREST – Competence Center for Research in Energy, Society and Transition.

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Transportation

All city busses are free of charge with conference badge. Bus no 3, direction "St.Gallen Bahnhof" takes you from Olma Messen St.Gallen directly to the train station.

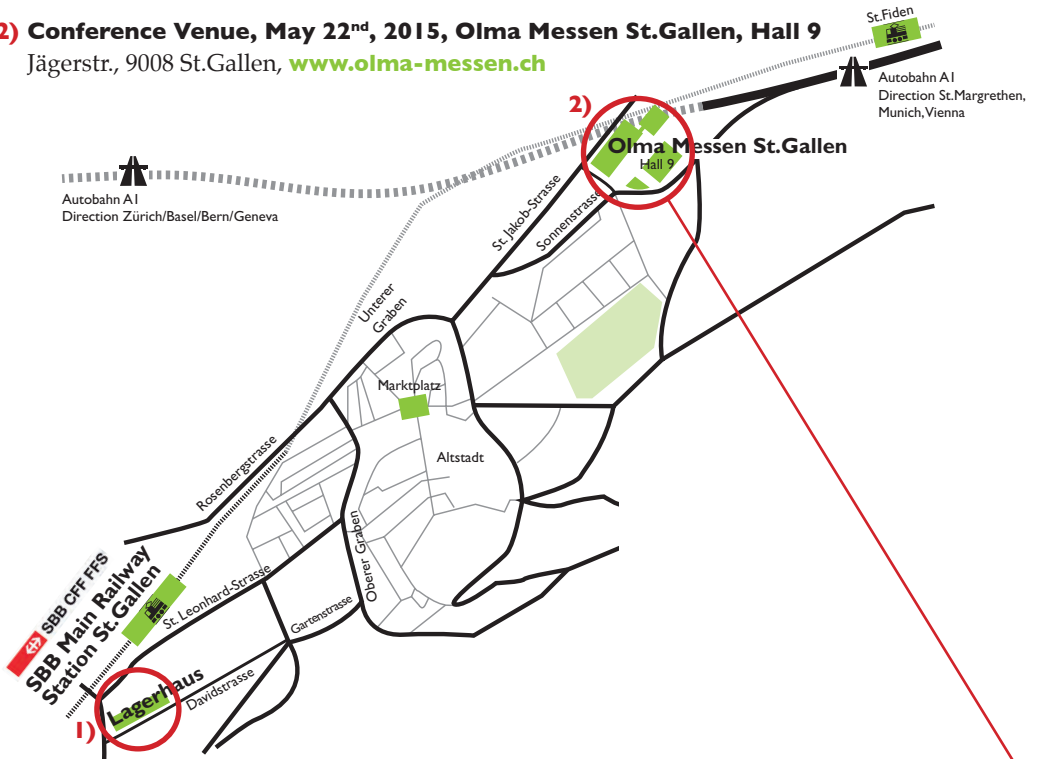
Venue

1) Welcome-Dinner May 21st, 2015, 18.30 h, Restaurant 'Lagerhaus'

Davidstr. 42, 9000 St.Gallen, www.restaurantlagerhaus.ch

2) Conference Venue, May 22nd, 2015, Olma Messen St.Gallen, Hall 9

Jägerstr., 9008 St.Gallen, www.olma-messen.ch



■ Entrances

■ Parking

■ Workshop 1 in 3.1

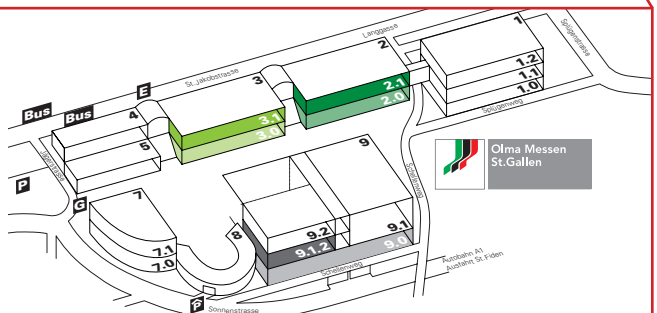
■ Workshop 2 in 9.1.2

■ Workshop 3 in 2.0

■ Workshop 4 in 3.0

■ Workshop 5 in 9.0 A/B

■ Workshop 6 in 2.1





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Energie-Tage
St. Gallen
 21.-22. Mai 2015

Die Energie-Tage sind eine
 Wissens- und Community-
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Weitere Informationen auf:
www.energie-tage.ch

Die Energie-Tage St.Gallen
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Kanton St.Gallen
Amt für Umwelt und Energie 

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Donnerstag, 21. Mai 2015
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**1. Fachkongress
 Energie + Bauen**

Freitag, 22. Mai 2015
www.empa.ch/eub



**3. Nationaler Energie-
 konzept-Kongress**

Donnerstag, 21. Mai 2015
www.energiekonzeptkongress.ch



**6. St.Galler Forum für
 Management Erneuerbarer
 Energien**

Donnerstag/Freitag, 21./22. Mai 2015
www.hsg-energieforum.ch

