



Federal Ministry
for Transport,
Innovation and Technology



Programme

SMART GRIDS WEEK | GRAZ 2014

19th to 23rd May 2014
Energie Steiermark and congress|graz
Graz / Austria

An Event of the Austrian Federal Ministry for Transport, Innovation and Technology,
the Austrian Climate and Energy Fund and Energie Steiermark

Preface BMVIT

Research and technological development make a decisive contribution to securing our energy future. As Minister of Technology I am concerned with two fundamental approaches – firstly, that innovative technological solutions are developed and secondly and just as importantly, that these new technologies find their way into applications and onto the market. This is the only way in which we can bring about the energy turnaround and only in this way will we be able to exhaust the entire potential of new technologies and make them into the driver of added value and jobs in our country. For this reason my department supports innovative companies and research organizations in the development of pilot and demonstration projects.

It gives me particular pleasure that the Austrian Smart Grids model regions have, in the meantime, become clearly visible internationally and that some of them have even become a central element of the European SET-Plan initiative. This puts Austrian companies and researchers in an excellent position for international partnerships and co-operations.

I sincerely wish all the participants at this year's Smart Grids Week that this event will be a significant exhibition of innovative Austrian

technologies. And I am delighted that this time the people and companies for whom the new technologies have been developed and who will use them will be at the centre of the discussions. In this way social innovations can emerge from technological solutions.



Doris Bures
Federal Minister for Transport,
Innovation and Technology
Austria

Preface Energie Steiermark

The world of the power companies is changing. Customers are becoming producers. Providers are becoming service providers. This also means re-thinking core competences, especially as far as grids are concerned.

Energie Steiermark has already followed this course of action. Innovative energy and mobility services as well as energy-efficient products complement the classical business areas of electricity, gas and heat. The company is an "Official Partner of a Green World" with the aim of helping to achieve safe and sustainable life.

In line with the changed market-driven conditions research projects take account of the topics of the future – renewable energy, environmental and energy-efficient technologies, mobility and of course smart cities.

Knowledge and experience from these activities flow into product development and thus guarantee sustainable innovation. For us, as a Styrian service provider, the topic of "Smart Grids" is the basis of the energy turnaround we want to bring about and also the entry into a new infrastructure era.

The increasingly complex interaction between decentralised power generation and the customer places extremely high and new demands on efficient smart grids – and on our committed employees.

As host of "Smart Grids Week | Graz 2014" Energie Steiermark places customer benefits in the foreground – and wishes you a successful conference!



Christian Purrer
Speaker of the Management Board
Energie Steiermark

The workshops at Smart Grids Week I Graz 2014 are free of charge.

For further workshops, information and online registration please visit: www.smartgridsweek.at

DAY 1 – Monday, May 19th, 2014

ERA-Net Smart Grids Plus Kick-Off

09:00–17:00 **Energie Steiermark, Leonhardgürtel 10, 8010 Graz, Austria**

The first day of the ERA-Net event is primarily directed towards smart grids programme owners, programme managers, as well as policy makers and national key experts. During the day we will exchange experience and knowledge on national Smart Grids Roadmaps, action plans as well as current research and implementation strategies. In the afternoon the first ERA-Net Smart Grids Plus Steering Board meeting will take place.

Chair: Michael Hübner, Federal Ministry for Transport, Innovation and Technology, Austria

Organisation and registration: Erika Ganglberger,
Austrian Society for Environment and Technology (ÖGUT), Austria
Phone: +43 1 315 63 93-25, Email: erika.ganglberger@oegut.at

INCREASE-Workshop

"The EU INCREASE Project – Providing Solutions for Distributed RES Generation from Technical Issues to Test Case Demonstrations"

09:00–12:30 **Energie Steiermark, Leonhardgürtel 10, 8010 Graz, Austria**

The European project INCREASE (FP7) aims to look for a solution to connect distributed renewable energy sources in an optimal way to the distribution grid. Control strategies will be developed and the possible provision of ancillary services will be examined. The results from this research will be tested, first in a simulation platform, then in laboratory environments and even in the real distribution grids in Austria, Slovenia and the Netherlands.

This workshop will discuss the major possible problems in LV networks and technical and economic solutions to be investigated in the INCREASE project. In particular, this workshop will aim to engage a range of stakeholders in order to obtain practical feedback. The international experience on distributed renewable energy sources shared by the workshop participants will broaden the understanding of the issues.

Chair: Gregor Taljan, Stromnetz Steiermark, Austria / Andreas Türk, JOANNEUM RESEARCH, Austria

Phone: +43 316 90555-52717, Further information: gregor.taljan@stromnetzsteiermark.at

Registration: www.smartgridsweek.at

Participation only by confirmation, registration deadline May 5th, 2014.

Limited number of participants.

BMVIT-Workshop

Research Area: Hybrid Energy Networks and Systems

13:00–17:00 **Energie Steiermark, Leonhardgürtel 10, 8010 Graz, Austria**

The smart grid concept is applicable not only to electricity, but also to natural gas and district heating networks. Nevertheless, the technical and economic potential of such hybrid networks have not been studied systematically. Within the working group "Hybrid Networks and Synergies with Municipal Infrastructures", initiated by the Austrian Ministry for Transportation, Innovation and Technology (BMVIT), concrete implementation options have been identified, potential estimated and obstacles to implementation and research needs have been identified. In this workshop – as part of the strategy process Smart Grids 2.0 – the preliminary results from this working group and possible future R & D priorities are presented and discussed with relevant stakeholders.

In German only!

Chair: Robert Hinterberger, NEW ENERGY Capital Invest GmbH, Austria

Phone: +43 1 33 23 560-3060, Email: Robert.Hinterberger@energyinvest.at

Information and registration: anmeldung@energyinvest.at

Participation only by confirmation, registration deadline May 9th, 2014. Limited number of participants.

Day 2 – Tuesday, May 20th, 2014**ERA-Net Smart Grids Plus "Non-Conference"- Matchmaking and Open Space**

09:00 – 17:00 Energie Steiermark, Leonhardgürtel 10, 8010 Graz, Austria

At the focus of the "Non-Conference Days" is the informal exchange of experience and ideas by experts and companies from the fields of smart grids and smart energy. In order to facilitate the formation of the transnational consortia for the planned ERA-Net Joint Call at the end of the year, the second day of the Era-Net event provides the opportunity to proponents of smart grids projects from industry, infrastructure operators and research institutions from various European countries to exchange their expertise and experience. New players in the world of smart grids such as providers of new services are addressed in particular. Bilateral meetings will be arranged in advance as "Matchmaking Sessions". Moreover there will be an Open Space for the exchange of opinions and ideas to design joint research tenders and any associated activities.

Chair: Jan Segerstam, Empower IM Oy, Finland and Michael Hübner, Austrian Ministry for Transportation, Innovation and Technology, Austria

Organisation: Erika Ganglberger, Austrian Society for Environment and Technology (ÖGUT), Austria

Phone: +43 1 315 63 93-25, Email: erika.ganglberger@oegut.at.

Information and registration: www.b2match.eu/smartgridsplus

Joint EcoGrid EU / IEA DSM Task 17 Workshop on Demand Side Management**Potentials, Implementations and Experiences**

10:00 – 17:30 JOANNEUM RESEARCH, Leonhardstraße 59, 8010 Graz, Austria

Attend the workshop to learn more about the latest activities in the field of active demand response (DR) and demand side management (DSM). The IEA DSM Task 17: "Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages" and the European project "EcoGrid EU" jointly organise this workshop to foster the exchange between experts and stakeholders. The contributions are structured into four blocks which will cover "DMS Potentials of Buildings", "DSM for Distribution Networks", "DSM and Market Operation", "DSM and Electric Vehicles" and a panel discussion with the presenters..

Chair: Benoît Bletterie & Matthias Stifter, AIT Austrian Institute of Technology, Austria

Phone: +43 0 50 550-6355, Information: Matthias.stifter@ait.ac.at

Registration: www.smartgridsweek.at

Evening Event of Energie Steiermark18:30 Energie Steiermark, E-Office/10th floor (Leonhardgürtel 10, 8010 Graz, Austria)**Dr. Jörg Wallner "Living Environment 2025"**

Jörg Wallner is Director of Innovation Management & Consulting at the 2b AHEAD think tank set up by the trend researcher Sven Gabor Janszky. Jörg Wallner knows which technologies will be of crucial importance in the future, which new business models are trend-setting for various industries, where attacks threaten established business models and when companies should use opportunities to enter into new business sectors and to develop new business models. But above all he is THE expert as far as the decisive question HOW is concerned. How can companies initiate innovations? How can they distance themselves from their (new) competitors and expand their own strengths? How can they achieve the necessary speed and develop a steady culture of innovation?

Bernhard Wolff "Thinking helps! – Desire for Ideas"

Moderator and keynote speaker Bernhard Wolff is an expert on new ideas, creativity and communication. He imparts a toolbox of the most successful area thinking techniques: the participants experience the amazing effect of pictures in their heads, invent new products and services by creative association, solve problems through changes in perspective, question assumptions, think outside the box, generate ideas and cast a look at the future. Humorously and in cabaret mode keynote speaker Bernhard Wolff makes the audience aware to what extent their thoughts and actions are shaped by perception and behavioural patterns. Whoever can laugh at their own habits can also break them!

followed by social networking

The tickets for the evening event are limited and shall be allocated according to the order in which registrations are received. We kindly ask for your early registration: www.smartgridsweek.at

Day 3 – Wednesday, May 21st, 2014 – CONFERENCE

Venue: congress|graz, Sparkassenplatz 3, 8010 Graz, Austria

Chair: Hubert Fechner,
University of Applied Sciences Technikum Wien, Austria

09:00 Welcome and Opening

Michael Paula, Head of Division Energy and Environment Technologies, Federal Ministry for Transport, Innovation and Technology, Austria

Theresia Vogel, Managing Director, Climate and Energy Fund, Austria

Christian Purrer, Speaker of the Management Board, Energie Steiermark, Austria

Siegfried Schrittwieser Deputy Governor, Provincial Government of Styria, Austria

09:45 The Energy Transition, a Styrian View

Wolfgang Jilek, Energy Commissioner, Province of Styria, Austria

10:00 Keynote: The Future of Smart Grid Communications

Kenneth C. Budka, Chief Technology Officer – Strategic Industries, Alcatel-Lucent, USA

10:40 Energy Management Based on an Infrastructure of Confidence – From Protection Profiles to Innovative Business Models in the Energy Sector

Thomas Weisshaupt, Senior Manager Business Development, Smart Energy Ecosystem, Gemalto M2M GmbH, Germany

11:10 COFFEE BREAK

11:30 Smart Grids – Worldwide / Recent European Developments

Per-Olof Granström, Secretary General, EDSO for Smart Grids

11:55 Smart Regulations – Current Developments in European Energy Regulation

Martin Graf, Head and Werner Friedl, Energie-Control Austria

12:25 Strategy Process Smart Grids 2.0 in Austria and Next Steps

Embedding in National and European Strategies

Michael Hübner, Federal Ministry for Transport, Innovation and Technology, Austria

Important Players and their Expectations of the Implementation Process

Michael Wedler, B.A.U.M. Consult, Germany

13:00 LUNCH BREAK

INNOVATION WITHIN THE SMART GRIDS PROCESS

Introduction and chair: Andreas Lugmaier,
Chairman of the Technology Platform Smart Grids Austria

14:15 Strategy Process Smart Grids 2.0 Contribution of the Austrian Energy Sector, Industry and Research: The Technology Roadmap Smart Grids 2020 and the Strategic Research Agenda 2035

Angela Berger and Helfried Brunner, Technology Platform Smart Grids Austria

14:40 Short Presentations of Selected Posters

15:30 Smart Energy Marketplace of Innovations / Poster Session

Introduction: Helfried Brunner, AIT Austrian Institute of Technology GmbH and Hubert Fechner, University of Applied Sciences Technikum Wien, Austria

16:00 Marketplace of Innovations: Smart Energy Austria Goes Europe

Chair: Ernst Sittinger, Member of the Chief Editorial Staff, Kleine Zeitung GmbH & Co KG, Austria

Model-Regions, innovative projects and enterprises are presented / interviews and talks with exhibitors and poster presenters, as well as with Michael Paula, Head of Division Energy and Environment Technologies, Federal Ministry for Transport, Innovation and Technology and Olaf Kieser, Chairman of the Board, Energie Steiermark, Austria about "The Innovation Potential of Smart Grids".

18:00 End

19:00 EVENING RECEPTION

by invitation of the Governor of Styria, Franz Voves
Assembly Hall of the Old University Graz,
Hofgasse 14, 8010 Graz, Austria

POSTER EXHIBITION

Project leaders of R&D or demonstration projects on the subject "Smart Grids" are cordially invited to present their results and publications in the form of scientific posters at the Smart Grids Week I Graz 2014.

The "BMVIT - Smart Grids Award 2014" will be awarded on the basis of the posters exhibited.

Further information and registration:
www.smartgridsweek.at

Day 4 – Thursday, May 22nd, 2014 – CONFERENCE

Venue: congress|graz, Sparkassenplatz 3, 8010 Graz, Austria

SMART GRIDS: CLIENTS AND MARKETS

*Chair: Klaus Bernhardt,
Technology Platform Smart Grids Austria*

09:00 The Role of Smart Grids for Cross Energy Management in the Renewable Energy Scenario (2050)
Christof Wittwer, Department Intelligent Energy Systems, Fraunhofer ISE, Germany

09:25 How to Realise the Energy Transition at a Cellular Level
Albrecht Reuter, Chairman of the Board, Smart Grids Platform Baden-Württemberg, Germany

09:50 The Project Energy Bunker and its Role in the Climate Protection Concept "Renewable Wilhelmsburg"
Jan Gerbitz, IBA Hamburg GmbH, Germany

10:15 How to Tame the Smart Grid – Electrotechnical Standardization – Guidelines for Stakeholders
Richard Valenta, OEK Austrian Electrotechnical Committee in the OVE Austrian Electrotechnical Association, Austria

10:30 COFFEE BREAK

10:45 Smart Grids as Part of Integral Energy Services
Hannes Zeichen, Managing Director, Energie Steiermark Kunden GmbH, Austria

11:00 E-mobility as an Important Component of Smart Mobility Solutions
Heimo Aichmaier, Managing Director, Austrian Mobile Power, Austria

11:25 Brief Introduction to the New Swiss Smart Grid Competence Centre "FURIES – Future Swiss Electrical Infrastructure"
Professor Mario Paolone, Distributed Electrical Systems Laboratory, Swiss Federal Institute of Technology Lausanne, Switzerland

11:45 Initiatives for Secure Smart Grids in Europe
Thomas Bleier, Head of Research Program ICT Security, AIT Austrian Institute of Technology GmbH, Austria

12:00 Smart Metering – "Who will be the Users of the Smart Energy System; Are Privacy Concerns a Barrier to Further Development?"
Introduction and chair: Andrea Kollmann, Technology Platform Smart Grids Austria

Dominik Engel, Josef Ressel Center for User-Centric Smart Grid Privacy, Security and Control, Salzburg University of Applied Sciences, Austria

Franz Strempl, Managing Director, Stromnetz Steiermark GmbH, Austria

Robert Tesch, Head of Division Smart Grids, Siemens AG Austria

Martin Wagner, Head of Department Business and Project Development, Verbund AG, Austria

13:00 LUNCH BREAK

*Chair: Ursula Tauschek,
Technology Platform Smart Grids Austria*

14:15 Short Presentations of Master Theses on the Topic of the Smart Grids Market

14:35 The Use of Hybrid Smart Grids for Clients – Example: Smart City Graz
Mathias Schaffer, Technical Officer for Energy Research & Innovation Management, Energie Steiermark, Austria

15:00 Smart Grids for Smart Cities – Example: Wien Aspern
Wolfgang Wais, Wiener Netze GmbH and Gerald Forthuber, Siemens AG Austria

15:25 AUSTRIAN CLIMATE AND ENERGY FUND: SHORT PROJECT PRESENTATIONS

Smart Grids to Reduce Backup Capacities
Wolfgang Prügler, Energy Economics Group (EEG), Technical University Vienna, Austria

Smart Energy Services
Roland Hierzinger, Austrian Energy Agency

Fees and Pricing
Simon Moser, Energy Institute at the Johannes Kepler University Linz, Austria

16:00 Excursion to SFL technologies GmbH in Stallhofen: Introduction to the "SFL Energrid System"

17:00 SFL Energrid – A Model for the Energy-Future of Production Sites
Mario J. Müller, Authorized Officer, CIO, SFL technologies GmbH, Austria followed by guided tours through the SFL-Productions- and FIBAG-Research Facilities

18:30 Test-Runs with "ELI – Energy Transport and Use for Local Supply"

from 19:00 STYRIAN EVENING IN STALLHOFEN

from 21:30 Return to congress|graz with shuttle buses

Day 5 – Friday, May 23rd, 2014 – CONFERENCE

Venue: congress|graz, Sparkassenplatz 3, 8010 Graz, Austria

ELECTRICITY GRIDS BECOME SMART – EXPERIENCES FROM REALISED PROJECTS

Chair: Helfried Brunner,
Technology Platform Smart Grids Austria

09:00 Research Results in the Electricity Grid Sector

MorePV2Grid: Findings on the Way to Realisation

Andreas Abart, Netz Oberösterreich GmbH and
Benoit Bletterie, AIT Austrian Institute of Technology GmbH,
Austria

Grid Saving Opportunities and Experience in Real Q(U)- Implementation in PV Inverters in Vorarlberg

Christian Elbs, Vorarlberger Energienetze GmbH, Austria

Management of Renewable Energy Sources in LV and MV Networks, the EU-Project INCREASE

Reinhard Padinger, JOANNEUM RESEARCH
Forschungsgesellschaft mbH, Austria

Experience from the IRENE Project (Egrid Applications and Consulting)

Robert Köberle, Head of Network Planning,
Allgäuer Überlandwerk GmbH, Germany

Coordination of the Reactive Power at the Interface of the HV and MV Grid during Scenarios of Increasingly Dispersed Generation

Albana Ilo and Professor Wolfgang Gawlik,
Institute for Energy Systems und Electric Drives,
Technical University Vienna, Austria

The *hybrid* VPP Concept: Demand Response under Consideration of Network-Restrictions

Gregor Taljan, Project-Coordinator, Stromnetz Steiermark and
Christoph Gutschi, cyberGRID GmbH, Austria

11:00 COFFEE BREAK

11:15 INDUSTRIAL DEVELOPMENTS IN THE ELECTRICITY NETWORK SECTOR

Controllable Local Area Network Transformers

Till Sybel, Managing Director, A-Eberle GmbH, Germany and
Andreas Abart, Netz Oberösterreich GmbH, Austria

Future Energy Systems Need More Information from the Network – How to Integrate Sensor Technology Cost Efficiently in Existing Local Area Network Stations

Günter Eisenkölbl, 3M Austria GmbH, Austria

Experiences with Large Battery Storage (1 MW) at the Swiss Distribution Grid

Alexandre Oudalov, Principal Scientist,
ABB Corporate Research, Switzerland

The intelligent Secondary Substation

Andreas Dungal, Sales Energy Automation Systems,
Siemens AG Austria

12:15 "BMVIT-Smart Grids Awards 2014"

12:30 Summary and Outlook

Michael Hübner, Federal Ministry for Transport,
Innovation and Technology, Austria

Elvira Lutter, Programme Management,
Climate and Energy Fund, Austria

12:45 LIGHT LUNCH AND END OF THE CONFERENCE

Information and registration:

www.smartgridsweek.at

Conference Fees

Participation at the workshops Mon/Tue: free
Early Bookers Wed-Fri (bookings before April 19th, 2014): EUR 500.00
Regular Fee Wed-Fri (bookings as of April 19th, 2014): EUR 650.00
One Day Ticket Wed/Thur: EUR 350.00
One Day Ticket Fri: EUR 200.00
Students Wed-Fri: EUR 50.00
Authors of posters Wed-Fri: EUR 300.00

All fees are exclusive of 20% VAT. The conference fee includes the
conference documents, refreshments during the coffee breaks,
lunch and participation at the evening events.

Hotel Reservations

A limited number of rooms in Graz are reserved for the participants
of the **Smart Grids Week I Graz 2014**. Information on the hotels
and reservation forms are available at www.smartgridsweek.at.
We ask for your **timely reservation by April 17th, 2014 at the
latest!** Reservations will be confirmed upon availability.

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SMART GRIDS WEEK | GRAZ 2014

Venues

congress|graz

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Organisers:



Cooperation partners:



With the support of:

