

Conference Programme
Gesamt-Konferenzprogramm

World Sustainable Energy Days 2015

25 - 27 February 2015
25. - 27. Februar 2015

WELS, AUSTRIA

6 + 3 = 1

PELLET CONFERENCE
PELLETSKONFERENZ

NEARLY ZERO ENERGY BUILDINGS
NIEDRIGSTENERGIE-GEBÄUDE

ENERGY EFFICIENCY WATCH

YOUNG RESEARCHERS' CONFERENCE

EUROPEAN SMART WINDOWS CONFERENCE

ENERGY-EFFICIENT COMMERCIAL BUILDINGS
ENERGIEEFFIZIENTE BETRIEBSGEBÄUDE

B2B MEETINGS & SITE VISITS
B2B MEETINGS & FACHEXKURSION

TRADESHOW
ENERGIESPARGESAMMELMENSCHEN

WWW.WSED.AT



World Sustainable Energy Days 2015

The World Sustainable Energy Days, one of the largest annual conferences in this field in Europe, offer a unique combination of events on sustainable energy.

For more than 20 years, experts from all over the world have gathered in Upper Austria to attend the events. In 2014, more than 750 decision makers from 59 countries participated in the conference!

The global meeting place for the sustainable energy community includes:

- 6 conferences (Pellets, Nearly Zero Energy Buildings, Energy Efficiency Watch, Commercial Buildings, Smart Windows, Young Researchers)
- 3 hands-on events (a major trade show, B2B Meetings and Site Visits)

The event offers up-to-date information on technologies, policies and markets and an excellent platform for new contacts and new business opportunities.

Welcome to the World Sustainable Energy Days 2015!

Die World Sustainable Energy Days, eine der größten jährlichen Konferenzen in diesem Bereich in Europa, bieten eine einzigartige Kombination von Veranstaltungen zum Thema nachhaltige Energie.

Seit über 20 Jahren versammeln sich einmal im Jahr Expert/innen aus der ganzen Welt in Oberösterreich. 2014 hatte die Veranstaltung mehr als 750 Teilnehmer/innen aus 59 Ländern.

Das globale Branchentreffen rund um nachhaltige Energie bietet:

- 6 Konferenzen (Pellets, Niedrigstenergie-Gebäude, Energy Efficiency Watch, Betriebsgebäude, Smart Windows, Young Researchers)
- 3 interaktive Events (führende Fachmesse, B2B Meetings und Fachexkursionen)

Die Veranstaltung bietet topaktuelle Informationen über Technologien, Märkte und Strategien und eine exzellente Plattform für neue Kooperationen und Geschäftsmöglichkeiten.

Wir laden Sie sehr herzlich zu den World Sustainable Energy Days 2015 ein!

Timetable / Zeitplan

 **Site Visits: Pellets & Wood Chips**
Fachexkursion Pellets & Hackschnitzel

 **Pellet Conference**
Pelletskonferenz

 **European Smart Windows Conference**

 **Young Researchers' Conference: Energy Efficiency**

 **Young Researchers' Conference: Biomass**

 **Energy Efficiency Watch**

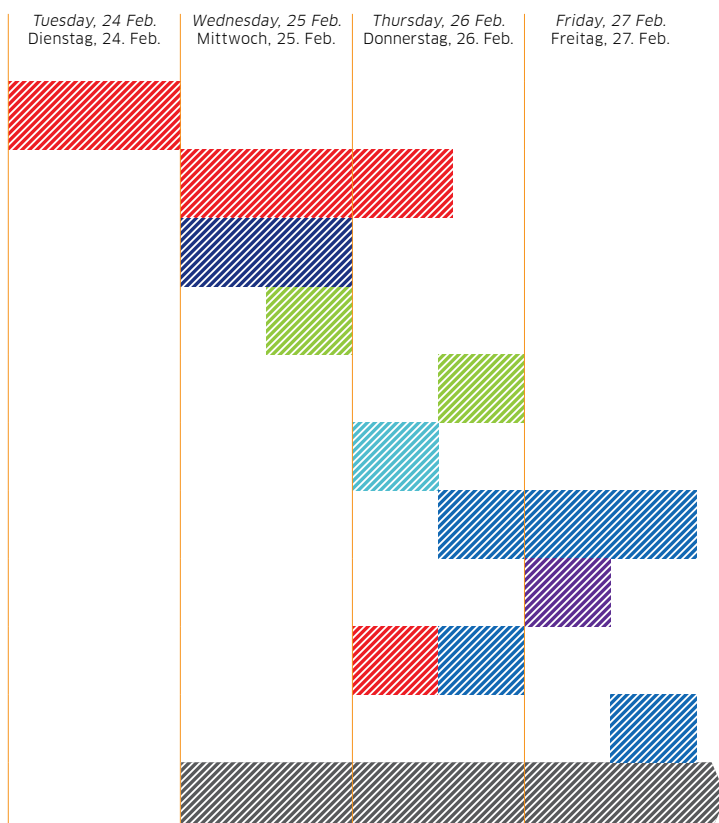
 **Nearly Zero Energy Buildings**
Niedrigstenergie-Gebäude

 **Energy-Efficient Commercial Buildings**
Energieeffiziente Betriebsgebäude

 **B2B Meetings**

 **Site Visits: Nearly Zero Energy Buildings**
Fachexkursion Niedrigstenergie-Gebäude

 **Tradeshow**
Energiesparmesse



Programme / Programm



European Pellet Conference The world's largest annual conference on pellets presents technology and policy trends, markets, innovation, finance, business models. It includes the

- World Pellet Business & Technology Forum
- B2B Meetings & Pellet Networking Platform
- Pellet Market News Worldwide
- "Pellet tradeshow" (with more than 100 pellet related exhibitors)

European Nearly Zero Energy Buildings Conference

High efficiency buildings supplied by renewable energy

Technologies ▪ policies ▪ best practice examples
▪ costs and financing ▪ new construction and renovation

Young Researchers' Conference

Presents the work of young researchers in the fields of biomass and energy efficiency, Best Young Researcher Awards

European Energy Efficiency Watch Conference

A conference giving an update on the implementation of the EU energy efficiency policies

Energy-Efficient Commercial Buildings Conference

High-efficiency non-domestic buildings supplied by renewable energy

Best practice examples ▪ technologies ▪ markets

European Smart Windows Conference

New research results on smart window technologies

Super-efficient windows ▪ innovative shading and light guidance ▪ energy harvesting and functional materials

Tradeshow "Energiesparmesse" Leading tradeshow on renewable energy and energy efficiency with 100,000 visitors and 1,600 exhibitors annually

B2B Meetings The opportunity to find new business partners in bilateral meetings (biomass & energy efficiency)

Technical Site Visits

- Wood pellets & wood chips (24 February)
- Nearly Zero Energy Buildings (27 February)

Poster Presentation The poster presentation offers the opportunity to display successful initiatives and projects on energy efficiency and renewable energy.



Europäische Pelletskonferenz Die weltweit größte jährliche Konferenz zum Thema Pellets: Technologie- & Strategie-Trends, Märkte, Innovationen, Finanzierung, Geschäftsmodelle; mit

- World Pellet Business & Technology Forum
- B2B Meetings & Pellet Networking Platform
- Pellet Market News Worldwide
- "Pelletsmesse" (über 100 Aussteller im Bereich Pellets bei der Energiesparmesse)



Europäische Niedrigstenergie-Gebäude Konferenz

Die europäische Konferenz über Gebäude mit hohem Effizienzstandard, die mit erneuerbarer Energie versorgt werden

Technologien ▪ Strategien ▪ Vorzeige-Projekte ▪ Kosten und Finanzierungen ▪ Neubau und Renovierung



Young Researchers' Conference Eine Konferenz zur Präsentation der Arbeiten von jungen Forscher/innen in den Bereichen Biomasse und Energieeffizienz, Best Young Researcher Awards



Europäische "Energy Efficiency Watch" Konferenz

Eine Konferenz zum aktuellen Stand der Umsetzung der EU Energie-Effizienz-Politik



Konferenz "Energieeffiziente Betriebsgebäude"

Hocheffiziente Betriebsgebäude, die mit erneuerbarer Energie versorgt werden

Vorzeige-Projekte ▪ Technologien ▪ Märkte



Europäische "Smart Windows" Konferenz

Neue Forschungsergebnisse zu "Smart Windows" Supereffiziente Fenster ▪ innovative Beschattung und Lichtlenkung ▪ integrierte Energiegewinnung und funktionelle Materialien



Energiesparmesse Führende Messe im Bereich erneuerbare Energie und Energieeffizienz mit mehr als 100.000 Besucher/innen und 1.600 Ausstellern jährlich



B2B Meetings Neue Geschäftspartner/innen in bilateralen Meetings finden (Biomasse & Energieeffizienz)



Fachexkursionen

- Pellets & Hackschnitzel (24. Februar)
- Niedrigstenergie-Gebäude (27. Februar)



Poster-Präsentation Die Poster-Präsentation bietet die Möglichkeit, erfolgreiche Ökoenergie- & Energieeffizienz-Projekte zu präsentieren.



European Pellet Conference 2015 Europäische Pelletskonferenz 2015



24 February

08.30 – 18.00

Site Visits "Pellets & Wood Chips"

A full-day trip by bus including technical Site Visits on the production of fuels & equipment and innovative applications for heating and electricity production

25 February

09.00

Changing market structures for pellets

Opening & welcome

- Rudi Anschober, Regional Minister for Energy, Upper Austria
- Gerhard Dell, OÖ Energiesparverband, Austria

Recent developments in European bioenergy policies

- Giulio Volpi, European Commission, DG Energy

Global challenges and opportunities for bioenergy

- Adam Brown, International Energy Agency

Analysis of pellet market structures

- Gabor Gafka, Pöyry Management Consulting, Germany

Energy resilience through biomass in South America, Africa and Central Asia

- Francisco X. Aguilar, University of Missouri, USA

Round-table: How to make pellets more competitive

Chairperson:

Gordon Murray, Wood Pellet Association of Canada

- Peter Wilson, Sustainable Biomass Partnership, UK
- Nathalie Hemeleers, AEBIOM
- Tim Knoop, Viridis Energy, Canada
- Christiane Egger, OÖ Energiesparverband, Austria
- Gregor Rinke, Seeger Engineering, Germany

12.30 Lunch break



24. Februar

08.30 – 18.00

Fachexkursion "Pellets & Hackschnitzel"

Eine Ganztagestour per Bus mit Fachbesuchen (Produktion von Brennstoffen und Anlagen sowie innovativen Anwendungen im Bereich Raumwärme und Stromerzeugung)

25. Februar

09.00

Marktstrukturen für Pellets verändern

Eröffnung & Begrüßung

- LR Rudi Anschober, Energielandesrat Oberösterreich
- Dr. Gerhard Dell, OÖ Energiesparverband, Österreich

Europäische Biomassestrategien - neue Entwicklungen

- Giulio Volpi, Europäische Kommission, GD Energie

Globale Herausforderungen und Chancen für Bioenergie

- Dr. Adam Brown, Internationale Energieagentur

Analyse Pellets-Marktstrukturen ■ Dipl. Forstw. Gabor Gafka, Pöyry Management Consulting, Deutschland

Energiesicherheit durch Biomasse in Südamerika, Afrika und Zentralasien

- Prof. Dr. Francisco X. Aguilar, University of Missouri, USA

Talkrunde: Wie können wir Pellets wettbewerbsfähiger machen?

Moderation:

Gordon Murray, BSc., Wood Pellet Association, Kanada

- Peter Wilson, MSc., Sustainable Biomass Partnership, GB
- Nathalie Hemeleers, MA, AEBIOM
- Tim Knoop, BSc., Viridis Energy, Kanada
- Mag. Christiane Egger, OÖ Energiesparverband, Österreich
- Dr. Gregor Rinke, Seeger Engineering, Deutschland

12.30 Mittagspause



European Pellet Conference 2015 Europäische Pelletskonferenz 2015



14.00 Getting the message across - marketing & branding

Promoting pellet stoves

- Marco Palazzetti, Gruppo Palazzetti, Italy

Comprehensive communication strategy of a pellet manufacturer

- Markus Mann, Westerwälder Holzpellets, Germany

Successfully marketing pellets

- Johan Granath, Ekman & Co, Sweden

Branding ENplus

- Marcos Martín Larrañaga, AVEBIOM

Communicating biomass heating

- Emanuel Wagner, Biomass Thermal Energy Council, USA

World Pellet Business & Technology Forum

Torrefaction technologies - status update

- Jaap Koppejan, Procede Biomass, The Netherlands

The new VDI pellet storage guideline

- Hans Martin Behr, German Pellet Institute (DEPI), Germany

Worldwide examples of pellet production plants using ORC

- Alessandro Guercio, Turboden, Italy

Challenges of transporting pellets to different markets

- Michael Christensen, CM Biomass Partners, Denmark

Ceramic lubricants for pellet mills

- Holger Streetz, BVG, Switzerland

Pellet Networking Platform

A platform for developing new co-operations among pellet actors across the value chain (in English only)

19.00 Evening programme



14.00 Erfolgreich kommunizieren - Marketing und Branding

Marketing für Pelletskaminöfen

- Dipl.-Ing. Marco Palazzetti, Gruppo Palazzetti, Italien

Umfassende Kommunikationsstrategien eines Pelletsherstellers

- Markus Mann, Westerwälder Holzpellets, Deutschland

Pellets erfolgreich vermarkten

- Johan Granath, MBA, Ekman & Co, Schweden

Die Marke ENplus

- Dipl.-Ing. Marcos Martín Larrañaga, AVEBIOM

Heizen mit Biomasse - Kommunikationsstrategien

- Dipl. Pol. Emanuel Wagner, Biomass Thermal Energy Council, USA

World Pellet Business & Technology Forum

Torrefizierung - ein Technologie-Update

- Dipl.-Ing. Jaap Koppejan, Procede Biomass, Niederlande

Die neue VDI-Richtlinie zur Pelletslagerung

- Dipl. Forstw. Hans Martin Behr, Deutsches Pelletinstitut (DEPI), Deutschland

Pelletsproduktionsanlagen mit ORC-Technologie auf der ganzen Welt

- Dr. Alessandro Guercio, Turboden, Italien

Herausforderungen beim Transport von Pellets zu verschiedenen Märkten

- Michael Christensen, MSc., CM Biomass Partners, Dänemark

Keramikfette für Pelletsproduktionsanlagen

- Dipl.-Kfm. Holger Streetz, BVG, Schweiz

Pellet Networking Platform

Plattform für neue Kooperationen in verschiedenen Bereichen der Pelletsbranche (nur in Englisch)

19.00 Abendveranstaltung





26 February

08.20 - 10.00 Pellet B2B Meetings

Finding new business partners in bilateral meetings (pre-registration for meetings is required, see www.wsed.at)

09.30 Pellet Market News Worldwide

Updates and outlook on different European and global pellet markets (in English only)

European pellet market overview

- Christian Rakos, proPellets Austria

UK: update on the renewable heat incentive

- Bruno Prior, Forever Fuels

Germany: responding to weak markets

- Martin Bentele, DEPV

Bulgaria: trends in pellet production and markets

- Atanas Pashaliev, Cluster Renewable Energy Sources

Sweden: finding new markets for pellets

- Bengt-Erik Löfgren, ÄFAB

Baltic States: production and markets

- Didzis Palejs, LatBio, Latvia

Russia: new markets and opportunities

- Olga Rakitova, The Bioenergy International

China: current situation and development trends

- Dou Kejun, China National Renewable Energy Center (CNREC)

12.30 End of the session

09.30 Pellet Technology Update

Pellet research and innovative technologies (in English only)

Latest results from research projects

BioMaxEff: annual efficiency and emissions of pellet boilers - test stand and field results

- Christoph Schmid, Bioenergy 2020+, Austria

Smart residential heat: optimising annual efficiency of pellet boilers

- Ingwald Obernberger, Bios Bioenergiesysteme, Austria

BioBoost: converting residual biomass to a high energy density carrier

- Nicolaus Dahmen, Karlsruhe Institute of Technology, Germany

AshMelt: an ash melting test for biomass fuels

- Josef Rathbauer, BLT Wieselburg, Francisco Josephinum, Austria

SMELL: malodorous emissions from wood pellets

- Barbara Pöllinger-Zierler, Technical University Graz, Austria

Technology news from Upper Austrian network partners

BioWIN 2 - low dust and high efficiency pellet boiler technology

- Jürgen Brandt, Windhager

Electricity-producing pellet boiler - pilot phase results and next steps

- Stefan Ortner, ÖkoFEN

Heat and power from wood pellets

- Werner Emhofer, Fröling

Nano-PK - a highly compact pellet boiler

- Florian Haslinger, Hargassner

12.30 End of the session

14.00 -16.00 Project workshops (research projects)

- AshMelt
- Smart residential heat
- BioBoost

17.00 -18.00 B2B Expo Visits



Young Researchers' Conference: Biomass



A conference to present the work of young researchers in the field of biomass (in English only)

26 February

14.00 Opening & welcome

Gerhard Dell/Christiane Egger, OÖ Energiesparverband

Chairperson:

Walter Haslinger, Bioenergy 2020+, Austria

A policy-making tool for the domestic use of biomass technologies

- Agorasti-Eri Toka, Aristotle University of Thessaloniki, Greece

Initiatives to support renewable heat New York

- Rebecca Trojanowski/T. Butcher, Brookhaven National Laboratory, USA

Evaluation of two biomass harvesting systems in Chile

- Rodrigo Labbé, Universidad Austral de Chile

Scenarios for selected bio-based materials

- Fabian Schipfer/Lukas Kranzl, Technical University Vienna, Austria

Opportunities and challenges for sustainable wood pellet production in Brazil

- Javier F. Escobar/Suani T. Coelho, University of São Paulo, Brazil

Development of a wood pellet durability tester for small samples

- Marius Wöhler, University of Applied Forest Sciences Rottenburg, Germany

Natural ventilation measures for CO off-gassing in small pellet storages

- Waltraud Emhofer/Klaus Lichtenegger/Walter Haslinger/Irene Sedlmayer, Bioenergy 2020+, Hermann Hofbauer, Technical University Vienna, Austria

Ablative flash-pyrolysis of lignocellulose rich biomass

- Stefan Conrad, Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT, Germany

Reduction of emissions of firewood stoves by integrated honeycomb catalysts

- Gabriel Reichert, Bioenergy 2020+, Austria

Experimental and theoretical investigation of the combustion of wood pellets

- Julia Behling, Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT, Germany; Jens Wiese, Ruhr University Bochum, Germany

Optimisation of rice husk pre-treatment

- Selin Gültekin/Eda Kaya/Cansu Yavuz/Melih Soner Celiktas, Ege University, Turkey

A case study for the utilization of straw-to-energy in Ukraine

- Oleksii Epik, Institute of Engineering Thermodynamics, National Academy of Sciences, Ukraine

Properties determination of straw biomass after combustion

- Josef Farták/Tomáš Hásl/Ivo Jiříček, Institute of Chemical Technology, Czech Republic

Planning, design and synthesis of sustainable palm-based bioenergy systems

- Rex T.L. Ng, Universiti Teknologi Malaysia

Algae-based mineral-organic biofuel for cogeneration

- Sergey Chirkov, Institute of Petrochemical Synthesis, Russia; Yuri Kozhevnikov/Vladimir Chirkov, All-Russian Research Institute for Electrification in Agriculture, Russia

A case study for delivering biomass installations in schools

- Chiara Cervigni/Cindy Carrillo Quijano, Northamptonshire County Council, UK

A case study for the use of biogas on Botana Farm, Colombia

- Nadia Rosero/Mauricio Villota/Oscar Barco, University of Nariño, Colombia

Towards sustainable biomass-for-bioenergy supply chains

- Annelies De Meyer/Catheline Ottevaere/Jos Van Orshoven/Dirk Catrysse, KU Leuven, Belgium

19.00 End of the conference day

19.30 Evening programme



European Nearly Zero Energy Buildings Conference



The coming years will see a sharp increase in the market uptake of highly efficient buildings throughout Europe: according to the European Buildings Directive, all new buildings must be "nearly zero energy buildings" by 2020 (public buildings already by 2018). A "nearly zero energy building" (NZEB) is a building that has a very high energy performance, the very low amount of required energy is covered to a very significant extent by renewable energy sources.

26 February

Policy & Market Update

14.00

Opening & welcome

- Rudi Anschöber, Regional Minister for Energy, Upper Austria
- Gerhard Dell, OÖ Energiesparverband, Austria

Update on European building policies

- Paula Rey Garcia, European Commission, DG Energy

"The NZEB Tracker" - market developments across the EU

- Andreas H. Hermelink, Ecofys, Germany

Global views on NZEBs

- Peter Graham, Global Buildings Performance Network

Advanced policy instruments for NZEBs

- Veit Bürger, Öko-Institut, Germany

Showcasing Upper Austrian NZEBs

- Gerhard Dell, OÖ Energiesparverband, Austria

NZEB Refurbishment & Financing

European projects supporting building refurbishment

- Gordon Sutherland, European Commission, EASME

Building renovation - the economic opportunity for Europe

- Yamina Saheb, European Commission, Joint Research Centre

Delivering NZEB renovation in EU Member States

- Oliver Rapf, Buildings Performance Institute Europe

Countdown to "Low Carbon Homes"

- Catrin Maby, Severn Wye Energy Agency, UK

Deep energy retrofits with energy performance

- Rüdiger Lohse, Klimaschutz- und Energieagentur Baden-Württemberg, Germany

"Schools for the future" - leading retrofit examples

- Hans Erhorn, Fraunhofer Institute of Building Physics, Germany

18.30 End of the conference day

19.00 Evening event

27 February

Workshop: Policy Implementation in Member States & Regions

09.00

NZEB scenarios & methodologies in Member States

- Lukas Kranzl, Vienna University of Technology, Austria

Can we trust Energy Performance Certificates?

- Aleksandra Arcipowska, Buildings Performance Institute Europe

Sustainco - policy conclusions from the regional level

- Julije Domac, North-West Croatia Regional Energy Agency, Croatia

Renewable heating and cooling policies for commercial buildings

- Kristian Petrick, IEA-RETD/All Green Energies

Experiences with NZEB implementation

- France: Jérôme Gatier, Directeur, METL/MEDDE
- Spain: Francisco Puente, ESCAN
- UK: Melville Kendal, County Councillor Hampshire

Discussion

Chairperson: Seamus Hoyne, Limerick Institute of Technology, Ireland

13.30 - 17.45

Site Visits Nearly Zero Energy Buildings

This conference is organised as part of the IEE-project "Sustainable Energy for Rural Communities" (SUSTAINCO): www.sustainco.info





In den kommenden Jahren wird die Zahl der "Niedrigstenergie-Gebäude" in Europa sehr stark ansteigen: Gemäß der EU-Gebäuderichtlinie müssen spätestens 2020 alle neuen Gebäude "Niedrigstenergie-Gebäude" sein (öffentliche Gebäude schon 2018). "Niedrigstenergie-Gebäude" sind Gebäude, die eine sehr hohe Gesamtenergieeffizienz aufweisen und bei denen der sehr geringe Energiebedarf zu einem ganz wesentlichen Teil durch erneuerbare Energieträger gedeckt wird.

26. Februar

Aktueller Marktüberblick

14.00

Eröffnung & Begrüßung

- LR Rudi Anschöber, Energielandesrat Oberösterreich
- Dr. Gerhard Dell, OÖ Energiesparverband, Österreich

Aktuelle europäische Gebäudestrategien

- Paula Rey Garcia, MSc., Europäische Kommission, GD Energie

Der "NZEB Tracker" - Markteinführung europaweit

- Dr. Andreas H. Hermelink, Ecofys, Deutschland

Niedrigstenergie-Gebäude weltweit

- Dr. Peter Graham, Global Buildings Performance Network

Innovative Förderinstrumente

- Dr. Veit Bürger, Öko-Institut, Deutschland

Vorzeige-Gebäude aus Oberösterreich

- Dr. Gerhard Dell, OÖ Energiesparverband, Österreich

Sanierung & Finanzierung von Niedrigstenergie-Gebäuden

Europäische Initiativen rund um Gebäudesanierung

- Gordon Sutherland, MSc., B.Eng., Europäische Kommission, EASME

Gebäudesanierung – Konjunkturmotor für Europa

- Dr. Yamina Saheb, Europäische Kommission, Joint Research Centre

Was können nationale Sanierungskonzepte leisten?

- Mag. Oliver Rapf, Buildings Performance Institute Europe

Bahn frei für Niedrigstenergiehäuser

- DI Catrin Maby, Severn Wye Energy Agency, GB

Gebäudesanierung mit Contracting

- Dipl.-Wi.-Ing. (FH) Rüdiger Lohse, Klimaschutz- und Energieagentur Baden-Württemberg, Deutschland

"Schools for the future" - führende Sanierungsbeispiele

- DI Hans Erhorn, Fraunhofer-Institut für Bauphysik, Deutschland

18.30 Ende des Konferenztages

19.00 Abendprogramm



27. Februar

Workshop: Strategien in Mitgliedstaaten & Regionen

09.00

NZEB Szenarien & Berechnungsmethoden in den Mitgliedstaaten

- Dr. Lukas Kranzl, Technische Universität Wien, Österreich

Können wir Energieausweisen vertrauen?

- Aleksandra Arcipowska, MSc, Eng., Buildings Performance Institute Europe

Sustainco: Schlussfolgerungen aus regionaler Perspektive

- Dr. Julije Domac, North-West Croatia Regional Energy Agency, Kroatien

Erneuerbare Wärme- und Kältestrategien für Betriebsgebäude

- DI Kristian Petrick, IEA-RETD/All Green Energies

Erfahrungen mit der Umsetzung

- Frankreich: Jérôme Gatier, Directeur, METL/MEDDE
- Spanien: Dr. Francisco Puente, ESCAN
- GB: Melville Kendal, County Councillor Hampshire

Diskussion

Moderation: DI Seamus Hoyne, MSc, Limerick Institute of Technology, Irland

13.30 – 17.45

Fachexkursion Niedrigstenergie-Gebäude

Die Konferenz findet im Rahmen des IEE-Projektes "Sustainable Energy for Rural Communities" (SUSTAINCO) statt: www.sustainco.info



European Smart Windows Conference



A conference to present new research results on smart window technologies

25 February

09.00 Opening & introduction

- Monique Lévy, European Commission, DG Research and Innovation
- Theodor Zillner, Federal Ministry for Transport, Innovation & Technology, Austria
- Monika Willert-Porada, University of Bayreuth, Germany
- Frank Koos, EuroWindow

The window - history and future from a global perspective

- Graham Dodd/Hannes Spiss, ARUP, UK

Adaptive building skins: real-life examples

- Brian Cody, Technical University of Graz, Austria

Benchmarking of active switchable solar control glazing

- Dirk Jödicke, EControl-Glas, Germany

Comparison of PV technologies for building integration (BIPV)

- Christoph Brabec, Friedrich-Alexander Universität Erlangen-Nürnberg, i-MEET, Germany

Building integrated PV: status quo and prospects

- Dieter Moor, Ertex Solartechnik, Austria

Façade integrated solar thermal collectors

- Federico Giovannetti, Institut für Solarenergie-forschung Hameln (ISFH), Germany

Novel functional coatings for architectural glass

- Uwe Kriltz, Guardian Europe, Luxembourg

Glass: the material of the future ■ Lothar Wondraczek, University of Jena, Laboratory of Glass Science, Germany

Lunch break

Parallel Workshops

Workshop 1: Functional layers

Chairperson: Uwe Kriltz, Guardian Europe, Luxembourg

Towards electrochromic windows via roll-to-roll processing

- Uwe Posset (EELicon), Fraunhofer ISC, Germany

Additives in redox electrolytes for reduction of loss current of electrochromic windows

- Muhammed Ariful Islam (WinSmart), Fraunhofer ISE, Germany

Sputtered TiO₂ and WO₃ films for photoelectrochromic devices

- Shankar Bogati (WinSmart), Fraunhofer ISE, Germany

SmartBlind: objectives and status

- Pierre Sixou (SmartBlind), Polymage, France

Inkjet printed OPV

- Anita Fuchsbaauer (MEM4WIN), Profactor, Austria

Switchable micro mirror arrays

- Volker Viereck (MEM4WIN), University of Kassel, Institute of Nanostructure Technologies and Analytics, Germany

Transparent conductive films on architectural glass

- Uwe Kriltz, Guardian Europe, Luxembourg

Graphene as potential ITO-replacement as transparent conductive layer

- Maria Losurdo (MEM4WIN), CNR-IMIP, Italy

Workshop 2:

Innovative insulating glass & new materials

Chairperson: Monika Willert-Porada, University of Bayreuth, Germany

Practical long-term experience with Vacuum Insulated Glass (VIG)

- Helmut Hohenstein, Dr. Hohenstein Consultancy, Austria

Thin-glass membranes for quadruple IG-units

- Leopold Mader (MEM4WIN), LiSEC, Austria

Phase Change Materials (PCM) as a storage element in window systems

- Martin Schröcker (Harwin), GlassX, Switzerland

Glass integrated capillars for cooling and energy harvesting

- Lothar Wondraczek (LAWIN), University of Jena, Germany

Workshop 3: Encapsulation and lamination of functional layers

Chairperson: Markus Jandl, LiSEC, Austria

Novel encapsulation technology

- Markus Jandl (MEM4WIN), LiSEC, Austria

Practical long-term experience with lamination of PV modules

- Martin Aichinger, Ertex Solartechnik, Austria

Lamination of functional elements

- Manfred Arnold (Harwin), Inglas, Germany

The ageing of lamination foils and the prediction of life-time of functional layers

- Gabriele Eder, OFI, Austria

Workshop 4: Life-cycle analysis

Chairperson: Fabrice Mathieux, European Commission, JRC

LCA from an industrial point of view - challenges and benefits

- Frank Koos, EuroWindow

Life Cycle Data Network as a tool to disseminate innovative projects

- Fabrice Mathieux (Harwin), European Commission, JRC, Institute for Environment and Sustainability, Italy

Energy demand for thin glass production

- Ulrich Neumann (MEM4WIN), University of Kassel, CESR, Germany

Workshop 5:

Quality assurance and standardisation

Chairperson: Geralt Siebert, Universität der Bundeswehr München, Germany

Relevance of quality approvals for the glass industry

- Geralt Siebert, Universität der Bundeswehr München, Germany

On-site measuring of U_g-values

- Alexander Frenzl, Netzsch-Gerätebau/Elmar Dohmann, Energy Glas, Germany

In-line detection of the filling degree of insulated glass units

- Volker Ribitsch, TecSense, Austria

Calculation of the energy performance of windows

- Norbert Sack, IFT Rosenheim, Germany

Towards the certification of 2 mm tempered thin glass

- Werner Bohlheim, LiSEC, Austria

Concluding Session

- Presentation of workshop results
- Panel discussion
- Forecast of the worldwide Smart Glass market growth

19.00 Evening programme

In cooperation with



European Energy Efficiency Watch Conference Europäische "Energy Efficiency Watch" Konferenz



26 February

09.00

Opening & welcome

- Rudi Anschober, Regional Minister for Energy, Upper Austria

Energy efficiency policies in the EU - an update

- Paula Rey Garcia, European Commission, DG Energy

Capturing the multiple benefits of energy efficiency

- Samuel Thomas, International Energy Agency

Energy efficiency and energy security

- David Buchan, The Oxford Institute for Energy Studies, UK

The Energy Efficiency Watch: experts' views on energy efficiency policies

- Christiane Egger, OÖ Energiesparverband, Austria

European experiences with energy efficiency obligations

- Nils Borg, eceee

What the building industry can contribute

- Jan te Bos/Andoni Hidalgo, EURIMA

Smart home & smart energy: toys or tools for energy efficiency?

- Wolfram Moritz, MPW Institute, Germany/USA

Chairperson: Jan Geiss, Eufores

13.00 End of the conference

12.00 - 14.00

B2B Meetings "Energy efficiency in buildings"

Finding new partners in bilateral meetings

(pre-registration is required, see www.wsed.at)

This conference is organised as a part of the IEE-project "Energy Efficiency Watch3" (EEW3):
www.energy-efficiency-watch.org



26. Februar

09.00

Eröffnung & Begrüßung

- LR Rudi Anschober, Energielandesrat Oberösterreich

Europäische Energieeffizienz-Politik - aktueller Stand

- Paula Rey Garcia, MSc., Europäische Kommission, GD Energie

Energieeffizienz: vielfältiger Nutzen für Gesellschaft und Wirtschaft

- Samuel Thomas, Internationale Energieagentur

Energieeffizienz und Versorgungssicherheit

- David Buchan, The Oxford Institute for Energy Studies, Großbritannien

"Energy Efficiency Watch": Expert/innen-Meinungen zur Energieeffizienz-Politik

- Mag. Christiane Egger, OÖ Energiesparverband, Österreich

Europäische Erfahrungen mit Energieeffizienz-Verpflichtungen

- Nils Borg, BA, eceee

Was die Gebäudeindustrie beitragen kann

- Jan te Bos/Andoni Hidalgo, MSc., EURIMA

"Smart home & smart energy": nur Spielzeug oder Energieeffizienz-Technologie?

- Dipl.-Kfm. Wolfram Moritz, MPW Institute, Deutschland/USA

Moderation: Dr. Jan Geiss, Eufores

13.00 Ende der Tagung

Diese Konferenz findet im Rahmen des IEE-Projektes "Energy Efficiency Watch 3" (EEW3):
www.energy-efficiency-watch.org



Young Researchers' Conference: Energy Efficiency



A conference to present the work of young researchers in the field of energy efficiency (in English only)

25 February

14.00 Opening & Welcome

■ Gerhard Dell/Christiane Egger, OÖ Energiesparverband

Chairperson:

Reinhold Priewasser, Johannes Kepler University, Austria

Quality assurance of Energy Performance Certificates across EU-28

■ Francesco Mariottini/Filippos Anagnostopoulos, Buildings Performance Institute Europe

Using smart meter data for energy efficiency policies of buildings

■ Erica Marshall, University of Leeds, UK

How climate change affects the Dutch housing stock

■ Mady Olonscheck, Potsdam Institute for Climate Impact Research, Germany

The technological innovation system of passive houses in Vienna

■ Tuukka Mäkitie, Vienna University of Economics and Business, Austria

The savings potential of green leases in the US commercial sector

■ Andrew Feerman, Institute for Market Transformation, USA

Cost-optimality of an office building with small-scale biomass cogeneration

■ Ayman Mohamed/Ala Hasan/Kai Sirén, Aalto University, Finland

Improvements for current energy balance calculation methods for industrial buildings

■ Pascal Brinks, Technical University Kaiserslautern, Germany/Lindab, Luxembourg

Energy-saving strategies in a manufacturing organisation in Sri Lanka

■ Akila Fernando/Iresha Somarathne/Ashan Asmone, Brandix Lanka, Sri Lanka

Industrial power study on power profiles

■ María-Jose Rivas Duarte, ACORN Research Centre, Ireland; Angela Rolfe/Neil J. Hewitt/Ye Huang, CST, University of Ulster, UK

Defining the energy performance gap for non-domestic buildings

■ Joanne Robinson/Timothy Foxon/Peter Taylor, University of Leeds, UK

Energy efficiency in data centres: moving beyond PUE

■ Nathaniel Horner/Inês Azevedo, Carnegie Mellon University, USA

Analyses of the extra cost of NZEB and low energy apartment buildings

■ Martin Thalfeldt/Ergo Pikas/Jarek Kurnitski, Tallinn University of Technology, Estonia

Thermally activated floor slabs as energy storage

■ Tobias Schilly/Conrad Völker, Technical University Kaiserslautern, Germany

Geothermal energy for residential cogeneration

■ Mihaela Coroiu, Technical University of Cluj-Napoca, Romania

Passive solar greenhouses: a model for Armenia

■ Gohar Shahinyan, Researchers for Bio Heating Solutions, Armenia

The refurbishment of Krapina-Zagorje county schools

■ Martina Krizmanić, North-West Croatia Regional Agency (REGEA), Croatia

Domestic hot water profiles and energy calculations in Finnish residential buildings

■ Kaiser Ahmed, Aalto University, Finland

Potentials for high-voltage electrode boilers in district heating systems

■ Dominik Eller, University of Applied Sciences Kufstein, Austria

19.00 End of the conference day

19.30 Evening programme



Energy-Efficient Commercial Buildings Conference Konferenz Energieeffiziente Betriebsgebäude



27 February

Market Overview Energy Efficiency in Commercial Buildings

09.00

Welcome & introduction

- Christiane Egger, OÖ Energiesparverband, Austria

Energy efficiency in commercial buildings

- Benoît Lebot, International Partnership for Energy Efficiency Cooperation

European non-residential construction markets: outlook until 2017

- Ludwig Dorffmeister, ifo Institute, Germany

Energy efficiency as a corporate strategy

- Peter Marburger, Siemens Building Technologies, Germany

Design of sustainable commercial buildings

- Livia Tirone, Architect, Portugal

Technical innovations & examples

Commercial buildings – from research to practice

- Michael Paula/Theodor Zillner, Federal Ministry for Transport, Innovation & Technology, Austria

Optimising daylighting in office buildings

- Jean-Louis Scartezzini, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland

LED solutions for commercial buildings

- Stephan Völker, Technical University of Berlin, Germany

Renewables in NZEB office and school buildings

- Jarek Kurnitski, REHVA/Tallinn University of Technology, Estonia

Performance test: low-carbon office building in Tokyo

- Yuichi Takemasa, Kajima Technical Research Institute, Singapore

13.00 End of the conference



27. Februar

Marktüberblick Energieeffizienz in Betriebsgebäuden

09.00

Eröffnung & Begrüßung

- Mag. Christiane Egger, OÖ Energiesparverband, Österreich

Energieeffizienz in Betriebsgebäuden

- DI Benoît Lebot, International Partnership for Energy Efficiency Cooperation

Europäischer Marktausblick bis 2017 für Nichtwohngebäude

- Dipl.-Vw. Ludwig Dorffmeister, ifo Institut, Deutschland

Energieeffizienz als Teil der Unternehmensstrategie

- Peter Marburger, MBA, Siemens Building Technologies, Deutschland

Architekturkonzepte für nachhaltige Betriebsgebäude

- Arch. Livia Tirone, Portugal

Technische Innovationen & Beispiele

Betriebsgebäude – von der Forschung in die Praxis

- DI Michael Paula/DI Theodor Zillner, BM für Verkehr, Innovation & Technologie, Österreich

Tageslichtnutzung in Bürogebäuden

- Univ.-Prof. Dr. Jean-Louis Scartezzini, Swiss Federal Institute of Technology Lausanne (EPFL), Schweiz

LED-Lösungen für Betriebsgebäude

- Univ.-Prof. Dr.-Ing. Stephan Völker, Technische Universität Berlin, Deutschland

Erneuerbare Energie in "NZEB"-Betriebsgebäuden

- Univ.-Prof. Dr. Jarek Kurnitski, REHVA/Technische Universität Tallinn, Estland

Praxistest: energieeffizientes Bürogebäude in Tokyo

- Dr. Yuichi Takemasa, Kajima Technical Research Institute, Singapur

13.00 Ende der Tagung



Hands-on events



Tradeshow "Energiesparmesse"

In parallel with the conferences, the Energiesparmesse, a leading tradeshow on energy efficiency and renewable energy, is held. This event attracts around 100,000 visitors and about 1,600 exhibiting companies annually.

- **Visiting days for professionals: 25 - 26 February**
- **Days for the general public: 27 February - 1 March**
- **Opening times: 09.00 - 18.00**

B2B Meetings

The B2B Meetings offer companies and research organisations the opportunity to meet potential co-operation and business partners from all over the world in individually planned meetings. A separate pre-registration is required.

- **Biomass: Thursday, 26 February, 8.20 - 10.00**
- **Energy Efficiency in Buildings: Thursday, 26 February, 12.00 - 14.00**

Site Visits

Excursions by bus to interesting sites in the surrounding area

- **Pellets & Wood Chips: Tuesday, 24 February, 8.30 - 19.00**
- **NZEB: Friday, 27 February, 13.30 - 17.45**

Poster Presentation

The Poster Presentation offers the opportunity to display successful sustainable energy initiatives and projects implemented by your company or organisation. It is an opportunity to present results of EU projects to experts from all over the EU.

Further information:
www.wsed.at/en/poster-presentation

Interaktive Events



Energiesparmesse

Die Energiesparmesse, die parallel zur Konferenz stattfindet, ist die führende Messe im Bereich Energieeffizienz und erneuerbare Energie mit mehr als 100.000 Besucher/innen und 1.600 Ausstellern jährlich.

- **Fachbesuchertage: 25. - 26. Februar**
- **Publikumstage: 27. Februar - 1. März**
- **Öffnungszeiten: 9.00 - 18.00**



B2B Meetings

Die B2B Meetings bieten Unternehmen und Forschungseinrichtungen die Möglichkeit neue Kooperationspartner aus der ganzen Welt zu treffen. Die Meetings werden individuell geplant, eine separate Voranmeldung ist erforderlich (nur in Englisch).

- **Biomasse: Donnerstag, 26. Februar, 8.20 - 10.00**
- **Energieeffizienz in Gebäuden: Donnerstag, 26. Februar, 12.00 - 14.00**



Fachexkursion

Fachexkursionen mit dem Bus zu interessanten Anlagen in der Umgebung

- **Pellets & Hackschnitzel: Dienstag, 24. Februar, 8.30 - 19.00**
- **Niedrigstenergie-Gebäude: Freitag, 27. Februar, 13.30 - 17.45**



Poster-Präsentation

Bei der Poster-Präsentation haben Sie die Möglichkeit, erfolgreiche Projekte aus dem Bereich nachhaltige Energie zu präsentieren. Sie bietet auch die Gelegenheit, Ergebnisse aus EU-Projekten den internationalen Expert/innen vorzustellen.

Weitere Informationen:
www.wsed.at/poster-presentation



The conference organiser



The OÖ Energiesparverband

The OÖ Energiesparverband, the organiser of the World Sustainable Energy Days, is the energy agency of Upper Austria. Located in Linz/Austria, it was set up to promote energy efficiency, renewable energy sources and innovative energy technologies. Its main target groups are private households, companies and public bodies.

The OÖ Energiesparverband is also responsible for the management of the Ökoenergie-Cluster (www.oec-en.at), the network of renewable energy and energy efficiency companies in Upper Austria. Together, the partner companies have more than 9,300 employees and a turnover of more than 2.3 billion Euro. Among the OEC companies are European market leaders in biomass boilers and solar thermal collectors.

*Further information on the OÖ Energiesparverband and the Ökoenergie-Cluster at:
www.esv-en.at, www.oec-en.at*

Upper Austria

The region of Upper Austria is one of Austria's nine regions and has a population of 1.4 million. In the field of renewable energy and energy efficiency, Upper Austria plays a leading role. 36 % of the primary energy consumption are produced from renewable energy sources (mostly biomass, hydro and solar).

Upper Austria has set itself the ambitious target of covering 100 % of its space heat and electricity demand with renewable energy sources by 2030.



Der Konferenzveranstalter



Der OÖ Energiesparverband

Der OÖ Energiesparverband, der Veranstalter der World Sustainable Energy Days, ist eine Einrichtung des Landes Oberösterreich mit dem Ziel, Energieeffizienz und erneuerbare Energieträger zu fördern. Er ist die zentrale Anlaufstelle für Energieinformation und einer der größten Anbieter von Energieberatung in ganz Europa.

Der OÖ Energiesparverband ist auch für das Management des Ökoenergie-Clusters (www.oec.at) verantwortlich, dem Netzwerk der Ökoenergie-Unternehmen Oberösterreichs. Gemeinsam beschäftigen die OEC-Partner über 9.300 Personen und erzielen einen Umsatz von über 2,3 Milliarden Euro. Zu den OEC-Partner-Unternehmen gehören die marktführenden Unternehmen im Bereich Biomasse-Kessel und Solarthermieanlagen.

Weitere Informationen über den OÖ Energiesparverband und den Ökoenergie-Cluster:
www.energiesparverband.at, www.oec.at

Oberösterreich

Oberösterreich, eines der neun österreichischen Bundesländer, ist eine Region mit 1,4 Millionen Einwohner/innen. Im Bereich der Energieeffizienz und der Nutzung erneuerbarer Energieträger nimmt OÖ eine Vorreiterrolle in Europa ein. 36 % des Energieverbrauchs werden in OÖ durch erneuerbare Energie (v. a. Biomasse, Wasserkraft & Solar) gedeckt.

Oberösterreich hat sich ambitionierte Ziele gesetzt: Bis zum Jahr 2030 sollen Raumwärme- und Stromverbrauch zu 100 % aus erneuerbaren Energien gedeckt werden.



World Sustainable Energy Days 2015



Date 25 - 27 February 2015

Venue Stadthalle Wels, Austria
Pollheimer Strasse 1, 4600 Wels

Conference languages
English, German, Russian

Organisation and conference office

OÖ Energiesparverband
Landstrasse 45
4020 Linz, Austria
Tel. +43/732/7720-14386
office@esv.or.at, www.esv.or.at
ZVR171568947, ATU 39283707

Conference fees

310 € for all WSED conferences
(25 - 27 February)
Information on fees for the
different events and for students
at www.wsed.at
All fees plus 10 % VAT

Registration

Please register online at
www.wsed.at

How to reach Wels?

by railway: direct connections from
Vienna, Linz, Salzburg,
Munich, Paris, Brussels, etc.
by road: A1 and A25 motorways
by air: airports in Linz (17 km from
Wels), Vienna (222 km), Salzburg
(110 km), Munich (247 km)

Datum 25. - 27. Februar 2015

Ort Stadthalle Wels, Österreich
Pollheimer Straße 1, 4600 Wels

Sprachen

Deutsch, Englisch, Russisch

Organisation und Tagungsbüro

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Konferenzbeiträge

310 € für alle WSED-Konferenzen
(25. - 27. Februar)
Teilnahmebeiträge für die einzelnen
Konferenzen und Studierende siehe
www.wsed.at/dt
Alle Beträge zzgl. 10 % MWSt

Anmeldung

Bitte verwenden Sie die Online-
Anmeldung auf www.wsed.at/dt

Wie kommen Sie nach Wels?

Bahn: direkt von Wien, Linz,
Salzburg, München, Berlin,
Brüssel etc.
PKW: Autobahnen A1 & A25
Flugzeug: Flughäfen Linz (17 km
von Wels), Wien (222 km), Salzburg
(110 km), München (247 km)



WWW.WSED.AT



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