

IEA Experts' Group on R&D Priority-Setting and Evaluation (EGRD)
Future Energy Market Designs: Research and Innovation Needs

SPEAKERS AND MODERATORS

Johannes Kerner, Energy Research, German Federal Ministry of Economic Affairs and Energy. Previously he was a scientific assistant at Ecole Polytechnique Federal de Lausanne (analysis of urban energy systems), a research assistant at Helmholtz Gemeinschaft Office in Beijing (research on China's landscape of energy research and technology) and research assistant at Max-Planck-Institut for Plasmaphysics Energy Systems Analysis Group (analysis of energy research budgets, public funding and subsidies). He holds a MSc in Science Communication (Imperial College London) a diploma in physics (ETH Zurich).



Dr. Birte Holst Jørgensen, Technical University of Denmark, is Chair of the IEA EGRD. She is an experienced researcher and practitioner in the field of new energy technologies and systems, where she has specialized in energy R&D strategies and technology policies at the national, European and international levels. She is Principal Coordinator in sustainable energy at the Sino-Danish Centre for Research and Education, a strategic co-operation between Danish universities, the Danish Ministry of Science, Technology and Innovation, and the University of the Chinese Academy of Sciences and the Chinese Academy of Sciences. Birte holds a PhD in Political Science (University of Copenhagen) and an MSc in Business Economics (Copenhagen Business School).

Dr. Atsushi Kurosawa is Director, Global Environmental Program, Research and Development Division, Institute of Applied Energy (IAE), where he has led many energy-and environment-related projects. Currently his research focuses on integrated assessments of global climate change and energy R&D strategy through the integrated assessment model GRAPE and TIMES-Japan model. He has held visiting and fellowship positions at many universities and institutes including Stanford University, the Research Institute of Innovative Technology for the Earth, Kyushu University, Tokyo University of Agriculture and Technology, Japan Science and Technology Agency, New Energy and Industrial Technology Development Organization, and University of Tokyo. He holds a PhD in Electrical Engineering (University of Tokyo), a MSc in Nuclear Engineering (Tokyo Institute of Technology) and a BSc in Nuclear Engineering (Nagoya University).



Ms. Carrie Pottinger, Programme Manager, Technology R&D Networks at the IEA, has more than 25 years cumulative energy knowledge and experience of analysis, particularly in the areas of energy statistics, energy policies and technology and R&D, including leading or contributing to thirty published works. She currently serves as Secretary to the IEA Experts' Group on R&D Priority-Setting and Evaluation, the Fusion Power Co-ordinating Committee, and the Working Party on Energy End-Use Technologies. She led efforts to revise the evaluation and review process for IEA Technology Collaboration Programmes (TCPs) on behalf of the Committee on Energy Research and Technology. Ms. Pottinger holds a degree in Communications (University of Washington) and has studied economics, data analysis and price forecasting.

Andreas Jahn is Senior Associate at the Regulatory Assistance Project where he focuses on issues relating to the German energy transition ("Energiewende"), helping develop and advance regulatory options for a carbon-neutral power sector, including demand-side resources and tariff design. He has extensive experience with power markets and regulation in Germany and Europe. Previously as Director of Regulatory Affairs at Ilekker Energie he was responsible for all energy policy and regulatory matters. As Senior Expert for the Association of New Energy Suppliers he gained valuable insight into political decision-making processes and legislative procedures. He was also a member of the task force on legislation to implement grid regulation of the German Federal Ministry of Economics. He holds degrees in Environmental Science (Universities of Leeuwarden and Bingen).





Dr. Werner Friedl is Thematic Coordinator (Head) of Integrated Energy Systems at the Austrian Institute of Technology (AIT). Previously he was Senior Research Engineer at AIT and Senior Electricity Expert for Energie-Control Austria. He is a member of the Board of Directors of the Association of European Renewable Energy Research Centres and served as Chair of the Council of European Energy Regulators (CEER) Smart Grids Coordination Task Force and the Electricity Quality of Supply and Smart Grids Task Force. He is a lecturer at the University of Applied Sciences of Upper Austria and Vienna. Wener holds a PhD and MSc in Electrical Engineering (Graz University of Technology) and a MBA: Management and Communications – Digital Communication (Capilano University) and Management and Communications – Microeconomics of Competitiveness (Munich Marketing Academy).

Mr. Fumiaki Ishida is General Manager of the Energy Use Technology Laboratory at the Kansai Electric Power Company where he is mainly engaged in the transmission and substation facilities planning, power system analysis. Previously he was the R&D Planning Group Manager at the New Energy Division for the New Energy and Industrial Technology Development Organisation (NEDO) as well as the regional energy Office Director and Chief Researcher. His areas of expertise include power system analysis, renewable energy, smart grid and smart community technology, virtual power plants (VPP), and blockchain. Fumiaki holds a degree in electrical engineering (University of Tokyo).



David Shipworth is professor for Energy and the Built Environment, University College of London Energy Institute, where his research focuses on demand flexibility within the energy system and the role of consumers, regulators, and buildings. He has a particular interest in peer-to-peer energy trading, community self-consumption, time of use tariffs, and home energy management systems. He is a popular speaker in the United Kingdom and internationally on peer-to-peer (P2P) energy trading - particularly on policy and regulatory implications; on the design, conduct and evaluation of field trials; and consumer response to different flexibility product offerings. He was recently elected as Chair of the IEA Technology Collaboration Programme (TCP) on Demand Side Management (DSM TCP). David holds a PhD in environmental risk (University of Melbourne) and studied architecture (Deakin University).

Dr. Armin Wolf heads the IT4Energy Center at Fraunhofer FOKUS where his research focuses on solving complex real-world constrained optimisation problems by combining operations research, artificial intelligence and constraint programming. Previously he held several leading position at Fraunhofer Institutes and the former Society for Mathematics and Data Processing (GMD) Institute for Computer Architecture and Software Technology (FIRST). His doctorate dissertation at the Technical University of Berlin was awarded as the best dissertation of the year by the GMD. He studied computer science and mathematics (University of Karlsruhe).



Dr. Georg Erdmann is the former head of Energy Systems at the Berlin Institute for Energy Technology. Previously he was Post doc and Assistant Professor at the Center for Economic Research, Swiss Federal Institute of Technology (Zürich). Dr. Erdmann's research spans a wide range of market, strategic and technical aspects of energy, industry and economics. He has authored several books and scientific articles. He has held several leadership positions on management and scientific boards including as President of the Board, KSB Energie; Chair of the German affiliate of the International Association for Energy Economics (IAEE), President of the IAEE, and was a member of the independent expert commission "Energy of the Future". He received a PhD in Economics (University of Münster).

Markus Graebig is Project Leader at WindNODE. His research focuses on the customer perspective in the energy transition, including: demanding customer surveys for municipal utilities including method optimization in the survey. Previously he was Research Associate at the Department of Energy Systems of the TU Berlin. Highlights of his research include re-communalisation and municipal works foundation for the Berlin referendum of November 2013 and reasons for changed consumption behavior among electricity network customers; Participation and transparency offers for electricity network customers). He collaborated on the project "SW-Agent - the role of municipal utilities in the energy transition" including case studies on innovative business models, establishment of a public utility database, stakeholder dialogues. Markus holds diplomas in Electrical Engineering (Technical University of Berlin) and a MPhil in Engineering for Sustainable Development (University of Cambridge).



Dr. Susanne Supper leads the office of the Green Energy Lab as Cluster Manager where she is responsible for the overall coordination of the project network. As Senior Project Manager for Energy and Climate at the Energy and Environment Agency Lower Austria, she organised the pre-project phase of the Green Energy Lab. She is a certified energy consultant. Dr. Supper studied cultural engineering and water management (University of Natural Resources and Applied Life Sciences, Vienna).

Ms. Imke Lammers' is a doctoral candidate at the University of Twente (Netherlands) Institute for Governance and Innovation Studies (IGS), department of Governance and Technology for Sustainability (CSTM). Imke's current project 'Smart Regimes for Smart Grids' is part of the Dutch research programme 'Uncertainty Reduction in Smart Energy Systems'. Her expertise covers energy policy, local energy planning, institutional theory, and the role of local and regional actors in the energy sector. She actively cooperates with field experts, municipalities, distribution system operators, and housing associations. Imke previously worked at the European Institute of Public Administration and the Saxion University of Applied Sciences (INTERREG projects Grow2Build and Groen Gas/ Grünes Gas). She holds a MSc in European Studies (University of Twente) and a M.A. (Westfälische-Wilhelms Universität Münster).



Professor Jacob Østergaard is the head of the Center for Electric Power and Energy at the Danish Technical University. His research focuses on technologies and solutions for efficient transformation of the energy system towards a high share of renewable energy. Jacob has successfully led large national and international award-winning projects such as EcoGrid EU. He founded the experimental facilities for smart energy systems, PowerLabDK, which comprises close coupling between physical experiments, computer simulations and a real-life, full-scale, renewable-based energy system. Previously he worked for the Research Institute of Danish Electric Utilities. He serves on several academic boards and as an advisor to the European Commission and the Danish government, including the Danish energy commission. He was awarded several prizes and has authored or co-authored some 200 peer-reviewed scientific publications, 15 book chapters and more than 50 technical reports. He holds a degree in electrical engineering (Danish Technical University).

Dr. Herbert Greisberger is the Managing Director of the Lower Austrian Energy and Environment Agency (OGUT), where his projects focus on energy and innovation with a special focus on sustainable buildings and renewables. Dr. Greisberger is also Scientific Manager of the Austrian Futurelab focusing on long-term developments and their consequences for society. He was formerly the Senior Scientist on R&D, innovation and energy technologies for the Austrian Energy Agency and the Austrian Society for Environment and Technology. He is also a Lecturer at the Institute for Research and Education focusing on energy economy and energy management. Dr Greisberger holds a PhD (University of Stuttgart) and studied economics (Universities of Graz and Vienna).





Dr. Alexander Zerrahn is research associate at the German Institute for Economic Research in the Department of Energy, Transportation, Environment. His research focuses on the economics of renewable energy systems, using numerical and empirical methods. Among others, he is interested in questions revolving around renewables and flexibility, decentral self-generation, sector coupling, and acceptance of energy infrastructure. He worked on numerous public sector consultation and research projects and published in leading energy and environmental economic journals. He is also a lecturer for renewable electricity economics at HTW Berlin. Alexander holds a PhD in economics (Technical University Berlin) and studied economics (Tübingen and Copenhagen).

Dr. Stefan Lorenczik, Energy Analyst for Power Markets and Electricity at the International Energy Agency, is responsible for developing the IEA's quantitative understanding of electricity demand outlooks, electricity market design and network regulatory frameworks. Previously Stefan was Manager and Chief Modeller at ewi Energy Research and Scenarios (Berlin) where he led the modelling activities as well as a number of consultancy projects. This included analysing greenhouse gas mitigation paths for European energy markets, the effects of changing wholesale bidding zones and the benefits of a stronger integration of electricity markets for clients ranging from generation companies, grid operators and regulators to governments. Stefan holds a PhD in economics (University of Cologne) which focused on essays on market design and strategic behaviour in energy markets.



Hiang Kwee Ho is Lead Technologist at the National Climate Change Secretariat (NCCS), Strategy Group, Prime Minister's Office, Singapore. He has been involved in sustainable energy-related work for more than 30 years in both the private and public sectors. His current responsibilities in NCCS include providing advice, analysis and assessment on energy technologies that can address sustainable energy and climate change challenges and opportunities. He has been actively involved in energy systems modeling, in the development of technology roadmaps and research, development and demonstration (RD&D) initiatives in key technology areas for Singapore's climate change mitigation efforts. He is also an Adjunct Associate Professor, School of Mechanical and Aerospace Engineering (Nanyang Technological University). He holds a MSc in Naval Architecture and Marine Engineering (Massachusetts Institute of Technology) and a BSc(Hons) in Marine Engineering (University of Newcastle-Upon-Tyne).

Hans-Günther Schwartz is the Strategic Programme Coordinator for Energy and Urbanisation Research at the Austrian Ministry of Transport, Innovation and Technology where he coordinates Austria's national programmes on urban issues and participation in transnational programme initiatives related to energy and urbanisation research, development and innovation such as the SET-Plan Joint Programming Initiative (JPI) Urban Europe. He serves as the Austrian delegate to the High-level Steering Group of the European Strategic Energy Technology Plan (SET-Plan) and initiator and coordinator of the European Research Alliance and Network (ERA-NET) Cofund Smart Cities and Communities. He also served as Chair of the SET-Plan Action on Smart Cities and Communities (Positive Energy Districts). He studied physics (Ludwig-Maximilians Munich and Technical University of Vienna).



Dr. Johannes Tambornino is the head of the Energy Strategies and Systems Analysis Unit at Project Management Jülich, where he is responsible for the R&D program on energy systems analysis funded by the German Ministry of Economic Affairs and Energy. He is leading a group that covers a broad range of topics along the energy innovation chain and currently serves as the German representative in the IEA Experts' Group on R&D Priority Setting and Innovation. He holds a PhD in Mathematical Physics and has actively pursued research in quantum gravity and cosmology at different laboratories in Canada, France and Germany before changing fields and devoting his time to energy-related issues.