

3rd International Forum

Long-term Energy Scenarios for the Clean Energy Transition

8-10 June 2021 | Virtual event

Agenda and speaker bios

Register ▶

Please note that this is a live document and will be updated. For more information,
contact LTES@irena.org.

1. Agenda

DAY 1 - Tuesday 8 June 2021	
10:00 – 10:25 CET	<p>Welcome and key note presentation</p> <p>Exploring the definitions of “net-zero” emissions and its implications for scenario development approaches in the context of guiding policymaking in the clean energy transition.</p> <p><u>Opening remarks</u></p> <ul style="list-style-type: none"> » Asami Miketa, Senior Programme Officer, International Renewable Energy Agency (IRENA) <p><u>Keynote address:</u> Net-zero scenarios - Insights from IRENA’s World Energy Transition Outlook</p> <ul style="list-style-type: none"> » Dolf Gielen, Director, Innovation and Technology Centre, International Renewable Energy Agency (IRENA)
10:30 – 12:00 CET	<p>Session 1: What do the climate neutrality goals mean to national LTES?</p> <p><i>*Co-organised with Technical Research Centre of Finland (VTT)</i></p> <p>When developing national LTES for net-zero strategies, government energy planners face the challenge of assessing net-zero implications for the energy sector. They also need to align their national LTES with global net-zero LTES and targets. This concern extends, among others, to the treatment of negative emissions and a full accounting of the clean energy value chain. This session will bring together government planners to discuss how net-zero's definition impacts the development of national LTES.</p> <p><u>Scene-setter</u></p> <ul style="list-style-type: none"> » Joeri Rogelj, Director of Research and Lecturer in Climate Change and the Environment, Imperial College London <p><u>Moderator</u></p> <ul style="list-style-type: none"> » Tiina Koljonen, Research Team Leader, Technical Research Centre of Finland (VTT) <p><u>Panelists:</u></p> <ul style="list-style-type: none"> » Andreas Kuhlmann, Chief Executive, German Energy Agency (dena) » Brian O’Gallachoir, Professor in University College Cork, Director of the MaREI Centre and Chair of the Executive Committee of the IEA Technology Collaboration Programme ETSAP » Kaare Sandholt, Chief Expert, China National Renewable Energy Centre » Keigo Akimoto, Group Leader and Chief Researcher, System Analysis Group, Research Institute of Innovative Technology for the Earth (RITE), Japan
16:00 – 17:30 CET	<p>Session 2: Strategies towards climate neutrality goals: How are LTES used to develop long-term low emission development strategies (LT-LEDS)?</p> <p><i>*Co-organised with the United Nations Framework Convention for Climate Change (UNFCCC)</i></p> <p>According to the Paris Agreement, the Parties should strive to formulate and</p>

communicate long-term low greenhouse gas emission development strategies (LT-LEDS). Many countries have committed to achieving net-zero emissions goal by 2050 in line with pathways toward the 1.5 °C degree goal. However, most countries have not yet submitted LT-LEDS. Net-zero emissions strategies require a profound transformation of the energy system such as electrifying end-use sectors with green electricity. This session will gather government energy (and climate policy) planners to discuss coordination challenges in energy planning and climate targets and how LTES can bring insights to create ambitious net-zero LT-LEDS.

Scene-setter:

- » **Kenichi Kitamura**, Associate Program Officer, United Nations Framework Convention on Climate Change (UNFCCC)

Moderator:

- » **Phillip Eyre**, Programme Officer, United Nations Framework Convention on Climate Change (UNFCCC)

Panelists:

- » **Ricardo Aguiar**, Researcher at Directorate-General for Energy and Geology, Portugal
- » **Rocio Rodriguez**, Energy and Climate Change Coordinator, Secretary of Energy Planning, Argentina

DAY 2 - Wednesday 9 June 2021

10:30 – 12:00 CET	Session 3: Climate-related scenario analysis in the financial sector
	<p>*Co-organised with the United Nations Environment Programme Finance Initiative (UNEP-FI)</p> <p>To date, financial institutions that have wanted to do climate scenario analysis have faced several obstacles. There is an abundance of climate models to choose from, and it is not immediately clear which ones are most relevant. Moreover, the field of climate modelling is technical and difficult to penetrate for non-experts. This session will gather experts from the financial sector to discuss how scenarios can provide a foundation for decision-useful financial and economic analysis. How are scenarios being used to assess climate risks to the economy and financial system, investment flow change and gaps, stranded assets, compliance with the TCFD and UN PRI, etc.?</p> <p><u>Moderator/Scene-setter:</u></p> <ul style="list-style-type: none"> » David Carlin, Task Force on Climate-Related Financial Disclosures Program Lead, United Nations Environment Programme Finance Initiative (UNEP-FI) <p><u>Panelists:</u></p> <ul style="list-style-type: none"> » Laurent Clerc, Director for research and risk analysis, French Prudential Supervision and Resolution Authority (ACPR), Banque de France » Nicholas Dodd, Senior Portfolio Analyst, Climate Scenario Analysis Program (PACTA), 2 Degrees Investing Initiative (2DII) » Peter Sandahl, Head of Sustainability, Nordea Life & Pension
14:00 – 15:00 CET	Session 4: Building resilient net-zero business strategies using long-term energy scenarios
	<p>*Co-organised with the Science-Based Target Initiative</p> <p>The energy transition and the pursuit of net-zero will have a profound impact on the economic system. While many companies are declaring their net-zero objectives, they are also preparing roadmaps to adapt their business strategies to mitigate transitional risks and seize the opportunities that such a transformation brings. This session will gather representatives from the private sector to discuss how companies use LTES to inform business strategies and which type of scenarios is the most relevant for businesses.</p> <p><u>Moderator:</u></p> <ul style="list-style-type: none"> » Nate Aden, Senior Associate, World Resources Institute (WRI) <p><u>Panelists:</u></p> <ul style="list-style-type: none"> » Davide Puglielli, Head of Scenario Planning and Group Strategic Positioning, ENEL » David Radermacher, Vice President Sustainability, E.ON » Sim van der Linde, Project Director Renewable Energy, DSM

DAY 3 - Thursday 10 June

10:30 – 12:00 CET	Session 5: Distilling critical energy transition features in net-zero scenarios
	<p>*Co-organised with the Joint Research Center (JRC)</p> <p>Scenario comparison studies suggest a wide range of technologies for achieving net-zero in the energy sector: electrification and digitalisation of end-use sectors, high shares of variable renewable energy in power generation, hydrogen and other synthetic fuels,</p>

	<p>among others. This session will bring together global and regional scenario experts to discuss the recurring features in LTES aimed at net zero emissions by 2050 and discuss how these translate into non-regret strategies for governments. Can the government already bet on winning technologies?</p> <p><u>Moderator/Scene-setter:</u></p> <ul style="list-style-type: none"> » Wouter Nijs, Researcher at Joint Research Centre (JRC), European Commission <p><u>Panelists:</u></p> <ul style="list-style-type: none"> » Bjarke Christian Nepper-Rasmussen, Advisor, Danish Energy Agency (DEA) » Claire Nicolas, Energy Specialist, World Bank » Henri Waisman, Senior Researcher in the Climate Group, Coordinator of Deep Decarbonization Pathways Projects, Institute for Sustainable Development and International Relations (IDDRI)
16:00 – 17:30 CET	Session 6: Capturing technological disruptions and behavioural change in long-term energy scenarios
	<p><i>*Co-organised with the U.S. National Renewable Energy Laboratory (NREL)</i></p> <p>Breakthrough technologies and social tipping points are all expected to be part of the net-zero energy transition. Capturing technological disruptions in scenarios will determine if new technologies appear in scenario results. Similarly, consumers' increasing role and lifestyle changes will allow exploring the interaction between energy supply and demand. This session will gather scenario experts to discuss how technological disruptions, such as hydrogen, innovation and electric vehicles can be better captured in LTES. Moreover, how can behavioural change in the context of the transition be explored with scenarios?</p> <p><u>Moderator/Scene-setter</u></p> <ul style="list-style-type: none"> » Doug Arent, Executive Director, Strategic Public-Private Partnerships, National Renewable Energy Laboratory (NREL) <p><u>Panelists</u></p> <ul style="list-style-type: none"> » Charlie Wilson, Researcher, Tyndall Centre for Climate Change Research, UK » Daniel Crow, Energy & Climate modeler, International Energy Agency (IEA) » Elena Verdolini, Professor, University of Brescia; Senior Scientist, RFF-CMCC European Institute on Economics and the Environment, Milan

2. Speaker bios

Welcome and keynote presentation

8 June (10:00 – 10:25 CET)



Asami Miketa

Senior Programme Officer, Power Sector Investment Planning, International Renewable Energy Agency (IRENA)

Asami Miketa is a Senior Programme Officer with the Innovation and Technology Center (IITC) at the International Renewable Energy Agency (IRENA) in Germany. Since 2012, she has been leading a program to support long-term energy planning activities in Africa, Asia, and Latin America. Key components in the program include the development of African power pools models, provision of training seminars to government officials, development of regional renewable roadmaps, and modelling variable renewable energy for policymaking. She is also leading IRENA's work on Long-term Energy scenarios for Clean Energy Transition under Clean Energy Ministerial. Another area of her work includes long-term capacity expansion planning with a higher share of variable renewable energy. Asami received her PhD from Keio University in Japan in 2002, while she worked as a research scholar with the Energy Program at International Institute for Applied Systems Analysis (IIASA) in Austria. In 2005, she joined the International Atomic Energy Agency (IAEA).



Dolf Gielen

Director, Innovation and Technology Centre, International Renewable Energy Agency (IRENA)

As director of the International Renewable Energy Agency (IRENA) Innovation and Technology Centre in Bonn since 2011, Dolf Gielen oversees the Agency's work on advising member countries on energy scenarios and planning, power sector transformation, cost and markets, technology status and innovation outlooks, and project development guidelines. Before joining IRENA, Dolf Gielen worked for the United Nations Industrial Development Organization (UNIDO) and the International Energy Agency. He has a PhD from the Delft University of Technology in the Netherlands.

Session 1: What do the climate neutrality goals mean to national LTES?

8 June (10:30 – 12:00 CET)



Joeri Rogelj

Director of Research and Lecturer in Climate Change and the Environment, Imperial College London

Dr Joeri Rogelj is Director of Research and Lecturer in Climate Change and the Environment at the Grantham Institute at Imperial College London. He holds a PhD in climate science from ETH Zurich, Switzerland and his research activities cross many disciplinary boundaries, connecting Earth system sciences to the study of societal change and policy. Over the past decade, Joeri Rogelj has contributed to several major scientific climate change assessments informing the international climate negotiations under the UNFCCC. He is a lead author on the annual Emissions Gap Reports by the United Nations Environment Programme (UNEP). He contributed to the physical science and climate change mitigation assessment of 5th Assessment Report of the IPCC, served as a Coordinating Lead Author on mitigation pathways for the IPCC Special Report on 1.5°C of Global Warming, and is currently a Lead Author for the IPCC's 6th Assessment. He continues to follow the UNFCCC climate negotiations as a scientific advisor and was in 2019 the youngest member serving on the UN Secretary-General's Climate Science Advisory Group.



Tiina Koljonen

Research Team Leader, Technical Research Centre of Finland (VTT)

Ms. Tiina Koljonen works as a Research Team Leader at the VTT Ltd. She has above 25 years' experience in low-carbon energy systems, including new technology development, policy impact analysis, technology foresight, and scenario planning. Her major duties are to deliver and disseminate policy impact analysis for the Finnish Government, European Commission, and the Nordic Council of Ministries. Since 2014, she has managed research groups with 10-30 researchers working in energy and climate policy analysis, energy system modelling, sustainability assessments, smart energy systems, and new technology development. She is currently coordinating national research projects to support Finnish Government and ministries in formulating new climate and energy strategy and medium term climate policy plan, which aim at reaching carbon neutrality by 2035 in Finland.



Andreas Kuhlmann

Chief Executive, German Energy Agency (dena)

Andreas Kuhlmann has been the CEO of dena since July 2015. In this role, he increased dena's profile as a driver and pioneer of energy transition and climate protection. Exemplary projects for this include the international innovation initiative "Start Up Energy Transition", which now brings together around 1,500 start-ups from all over the world, as well as the "Integrated Energy Transition" pilot study, whereby dena, together with more than 60 partners from business and science, is developing strategies for the future and the achievements of the climate goals. Andreas Kuhlmann majored in physics and minored in economics at the universities of Bonn, Heidelberg and Corvallis (USA). He started his career in 1995 at the Institute of Environmental Physics at Ruprecht-Karls University in Heidelberg, where he primarily focused on the carbon cycle. This was followed by various political posts, including at the European Parliament, with the Social Democratic Party of Germany (SPD), at the Bundestag, within the Federal Ministry of Labour and Social Affairs and at the German Embassy in Stockholm. In 2010 Andreas Kuhlmann joined the German Association of Energy and Water Industries (BDEW) and took over the Politics and Economics

departments as Director of Strategy and Politics. He was responsible for the strategic and political development of BDEW as well as the dialogue with politics, business and the public.



Brian O'Gallachoir

Professor in University College Cork, Director of the MaREI Centre and Chair of the Executive Committee of the IEA Technology Collaboration Programme ETSAP

Brian Ó Gallachóir is Professor of Energy Engineering in University College Cork's School of Engineering and Vice-Director of UCC's Environmental Research Institute. He is also Director of the national SFI MaREI Centre, an energy and marine-based research, development and innovation hub. He is elected Chair of the Executive Committee for the International Energy Agency's Technology Collaboration Programme on energy systems modelling (IEA-ETSAP). Brian's research focus is on building and using integrated energy systems models to inform energy and climate change mitigation policy. His research has been published extensively and has directly informed policy decisions. Brian is also a member of the national Gas Innovation Group in Ireland. An applied sciences graduate of Dublin Institute of Technology, Brian moved to Cork in 1990 to carry out a Doctoral research programme in ocean wave energy in the Department of Applied Mathematics. From 1995-1998, Brian was Technical Manager of the Renewable Energy Information Office of Sustainable Energy Authority of Ireland.



Kaare Sandholt

Chief Expert, China National Renewable Energy Centre

Kaare Sandholt analyses China's energy policies and advises on energy strategies. He has in-depth knowledge of China's current energy policies, the deep energy transition including the four "energy revolutions" within energy consumption, energy supply, energy technology, and energy systems. Kaare Sandholt has worked as chief expert at China National Renewable Energy Centre in Beijing for 10 years. He is a key figure in the successful Danish-Chinese energy partnership which makes Danish experience available for China to accelerate the green energy transition.



Keigo Akimoto

Group Leader and Chief Researcher, System Analysis Group, Research Institute of Innovative Technology for the Earth (RITE), Japan

Keigo Akimoto was born in 1970. He received Ph.D. degree from Yokohama National University in 1999. He joined Research Institute of Innovative Technology for the Earth (RITE) to work with the Systems Analysis Group in 1999, was a senior researcher in 2003 and the Leader of the Systems Analysis Group and an associate chief researcher at RITE in 2007. Currently he is the Leader of the Group and a chief researcher at RITE. He was a guest researcher at IIASA in 2006, a guest professor, Graduate School of Arts and Sciences, the University of Tokyo between FY2010 and 2014, and a Lead Author for the Fifth and Sixth Assessment Report of IPCC. He is a member for several advisory bodies on energy and environmental policy for Japanese government including Strategic policy committee, Advisory committee for natural resources and energy; and Global environment subcommittee, Industrial structure council; Climate change impact assessment subcommittee, Central environment council. His scientific interests are in modeling and analysis of energy and environment systems. He received the Peccei Scholarship from IIASA in 1997.

Session 2: Strategies towards climate neutrality goals:
How are LTES used to develop long-term low emission development strategies (LT-LEDS)?

9 June (10:30 – 12:00 CET)



Pablo Carvajal

Programme Officer - Clean Energy Transition Scenarios, International Renewable Energy Agency (IRENA)

Pablo Carvajal joined IRENA in 2018 and manages the Long-term Energy Scenario Network and Campaign. His area of expertise is in modelling energy and climate scenarios and performing original cutting-edge scientific research in energy transitions towards net-zero emission futures. He is a Lead Author of the IPCC AR6 WG3 Chapter on Investment and Finance and was a lead author of UNEP Emission Gap Report 2019. He has been an energy advisor to the Ecuadorian government and a consultant for the InterAmerican Development Bank, GIZ, WWF and IRENA. He has lectured on energy systems modelling, energy planning and microeconomics. He holds an M.Sc. in Renewable Energy from the University of Oldenburg in Germany and a PhD in Energy & Economics from University College London in the United Kingdom.



Kenichi Kitamura

Associate Program Officer, United Nations Framework Convention on Climate Change (UNFCCC)

Kenichi joined UNFCCC in 2019 and currently work for NDC, LT-LEDS and Sectorial Support unit in the Mitigation division where he provides technical support to facilitate implementation and preparation of NDCs, LT-LEDS and sectoral policies to reduce greenhouse gas emissions.



Phillip Eyre

Programme Officer, United Nations Framework Convention on Climate Change (UNFCCC)



Ricardo Aguiar

Researcher at Directorate-General for Energy and Geology (DGEG), Portugal



Rocio Rodriguez

Energy and Climate Change Coordinator, Secretary of Energy Planning, Argentina

Rocio Rodriguez is an Industrial Engineer with a postgraduate degree in Environmental Engineering and a Master's degree in Renewable Energies from the National Technological University. She holds a Master in Energy at the University of Buenos Aires. She has more than 15 years of professional experience in climate change and energy and an extensive international experience as a consultant in various positions. Rocio also has experience in the public sector in the development of programmes, energy efficiency and climate change policies, coordinating the area of Planning, Measurement and Verification in the Undersecretariat of Renewable Energy and Energy Efficiency and coordinating the area of Energy and Climate Change in the Undersecretariat of Energy Planning, in the Secretariat of Energy.

Session 3: Climate-related scenario analysis in the financial sector

9 June (10:30 – 12:00 CET)



David Carlin

Task Force on Climate-Related Financial Disclosures Program Lead, United Nations Environment Programme Finance Initiative (UNEP-FI)

David Carlin leads the Taskforce on Climate-related Financial Disclosures (TCFD) program for UNEP FI. In that role, David helps a group of nearly 40 global financial institutions to understand and assess their climate risk. He also writes about climate change and history for Forbes. Prior to joining UNEP FI, he worked as a senior manager in Risk and Public Policy for Oliver Wyman Consulting. Before joining Oliver Wyman, David was a model validator at PNC bank, specializing in CCAR and Basel credit models. His background is in quantitative modeling and decision science. He conducted research in financial decision-making at Carnegie Mellon University and graduated Phi Beta Kappa from Williams College.



Laurent Clerc

Director for research and risk analysis, French Prudential Supervision and Resolution Authority (ACPR), Banque de France

Laurent Clerc is Director of Research and Risk Analysis for the French Prudential Supervision and Resolution Authority (ACPR). He previously held the positions of Director of Financial Stability, Director of Monetary and Financial Studies and Secretary of the Banque de France Foundation for Research at the Banque de France. He has also worked as an economist at the Bank of England (Monetary Assessment and Strategy Division), the European Central Bank (Monetary Policy Directorate), the OECD (Monetary and Financial Division) and began his career at the Direction de la Prévision of the Ministry of Economy and Finance. Laurent Clerc is a former student of the École Normale Supérieure de Cachan, and holds an agrégé in social sciences. He holds a DEA in economic analysis from the École des Hautes Études en Sciences Sociales, the ENS and the ENSAE and is a graduate of the London School of Economics.



Nicholas Dodd

Senior Portfolio Analyst, Climate Scenario Analysis Program (PACTA), 2 Degrees Investing Initiative (2DII)

Nicholas Dodd works as senior portfolio analyst for PACTA, including on company-level alignment analysis and on projects in emerging markets such as in Latin America. He previously worked as a project and scientific officer at the European Commission's DG Joint Research Centre, where he was involved in criteria development for various environmental policy instruments, including Green Public Procurement (GPP), Level(s), the EU Taxonomy and the EU Ecolabel on retail finance products. Prior to that he worked in the UK for the consultancy URBED, with a focus on low carbon urban development, building renovation and energy infrastructure strategies and projects. He led development and implementation of the sustainable investment policy for Aviva's groundbreaking igloo property investment impact fund. Nicholas has a BSc in applied environmental and resource science from the University of Salford and an MPhil in green purchasing and supply from the University of Manchester.



Peter Sandahl

Head of Sustainability, Nordea Life & Pension

Peter is the Head of Sustainability for Nordea Life & Pension, the asset owner arm of the Nordea Group. He has a leading role in the UN convened Net-Zero Asset Owner Alliance where he is part of developing the frameworks and principles for net-zero alignment. Peter is a member of the Steering Committee in Partnership for Carbon Accounting Financials (PCAF) and a member of the Expert Advisory Group in Science Based Targets (SBTi) for Financial Institutions. He also sits in the Global Scientific & Investor Committee for Carbon Risk Real Estate Monitor (CRREM) and is a member of the Asset Owner Advisory Committee in the UN Principles for Responsible Investment (UN PRI).

Session 4: Building resilient net-zero business strategies using long-term energy scenarios

9 June (14:00 – 15:00 CET)



Nate Aden

Senior Associate with WRI's Business Center and WRI Climate Program, World Resources Institute (WRI)

Nate Aden is a Senior Associate with WRI's Business Center, as well as the WRI Climate Program. He leads interdisciplinary research focused industrial sector transformation, methods to align company GHG targets with ambitious climate scenarios, and components of country-level GHG-GDP divergence. Beyond research, Nate works directly with companies, industry associations, and other stakeholders to map and implement pathways to a competitive low-carbon economy. Prior to joining WRI, Nate conducted energy efficiency research with the Lawrence Berkeley National Laboratory, California. His projects were focused on energy efficiency policy, assessment of Chinese urban form energy use and emissions, Chinese energy data, transport electrification and renewable electricity scenario analysis, the coal sector, and the steel sector. Prior to LBL Nate worked for the U.S. consulate in Shanghai. He holds a PhD from the Energy and Resources Group at the University of California, Berkeley, a master's degree from Stanford University, and a bachelor's degree from Cornell University.



Davide Puglielli

Head of Scenario Planning and Group Strategic Positioning, ENEL

Davide Puglielli is the Head of Scenario Planning and Group Strategic Positioning at Enel. In this role, he helps shaping the framework of alternative scenarios to define Enel's long term ambitions and assess its strategic resilience with respect to the key uncertainties connected to the energy transition and climate change. He leads a multidisciplinary team that analyze and models the evolution of the external context, from policies to technologies and the competitive landscape, to support the strategic positioning of the Company. He has worked in areas from regulation and energy policy, to Strategic planning. He holds a Master in Industrial Engineering and a Graduate Certificate on Energy Regulation from the European University Institute.



David Radermacher

Vice President Sustainability, E.ON

David Radermacher, Vice President Sustainability and Climate at E.ON SE is responsible for E.ON's sustainability strategy since 2018. In this role, he is responsible for E.ON's climate strategy as well as social sustainability topics such as human rights due diligence. Since joining the E.ON Group in 2011, he has held various roles, including energy expert in strategy and business development. Prior to that, David Radermacher worked for the international BP Group, among others. He holds a Master of Science in Energy Economics from the Universities of Aachen and Münster.



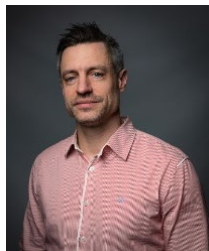
Sim van der Linde

Project Director Renewable Energy, Royal DSM

Sim van der Linde is Project Director Renewable Energy at Royal DSM. He has been with the company since 1986 and had responsibilities for laboratory operations, natural gas, business intelligence, business development, secretary-general of a branch organization, purchasing improvements, diverse projects and sourcing of energy prior to assuming his present role. Sim has worked on sustainable heat while his current focus is to significantly increase the use of renewable electricity and thereby reduce the carbon footprint of DSM's activities.

Session 5: Distilling critical energy transition features in net-zero scenarios

10 June (10:30 – 12:00 CET)



Wouter Nijs

Researcher at Joint Research Centre (JRC), European Commission

Wouter Nijs is project officer at the European Commission's Joint Research Centre (JRC). Wouter has more than fifteen years of experience in energy consultancy and energy related research. He mainly worked on creating long-term energy scenarios and together with the JRC colleagues, he was the first to open a European multi-sectoral energy system model named JRC-EU-TIMES as well as ENPSRESO, a coherent database of wind, solar and biomass energy potentials. He generated multiple reports using scenario comparisons in the context of the Energy Union. The latest one, 'Towards net-zero emissions in the EU energy system', is used for the agenda setting of many countries, also outside the EU. In 2020, he supported the scenario work for the Impact Assessment on the increase of the EU 2030 climate target. His latest activity is the creation of an interactive tool to visualise energy scenarios to create awareness and to inform about the European Green Deal. Wouter has an engineering background and considers himself a self-made economist. He worked previously for VITO/EnergyVille.



Bjarke Christian Nepper-Rasmussen

Advisor, Danish Energy Agency (DEA)

Bjarke Christian Nepper-Rasmussen is an advisor within the Global Cooperation team of the Danish Energy Agency. He focuses on supporting countries in their energy modelling and scenario development as part of the planning behind future energy systems and subsequent transitioning into decarbonised systems. As part of his portfolio, Bjarke works closely with government experts in China and India, bringing Danish experiences in the green transition directly to the relevant stakeholders. Moreover, Bjarke draws on his experience from previously living and working in China, when discussing with experts how Danish experiences can be converted to fit Chinese context. Prior to joining the Danish Energy Agency, Bjarke was part of the security of power supply group in the Danish Transmission System Operator, carrying out the process of assessing the level of security of supply as well as determining the appropriate target in 2030 for the Danish power supply.



Claire Nicolas

Energy Specialist, World Bank

Claire is a member of the power system planning team at the Energy Sector Management Assistance Program (ESMAP) of the World Bank. Her primary focus is to support the Africa program, as well as maintenance and development of the Electricity Planning Model and growing climate resilience-related work for energy infrastructure. Before joining ESMAP, Claire worked in the Sustainable Development Chief Economist's office for almost 2 years focusing on Climate Change mitigation and decision making under deep uncertainty. She provided cross-support to the Energy Global Practice, mostly on projects involving power planning, and to the Environment Global Practice to help teams and clients take long-term uncertainties into account in the preparation of projects and strategies. Prior to the World Bank, Claire worked for four years in the oil refining industry as a strategic marketing engineer. Claire holds a PhD in economics

on “Robust energy and climate modeling for policy assessment’ from Nanterre University (France), an engineering degree from ENSTA ParisTech, and an M.Sc in Economics from Pontois ParisTech. Claire is the author of a forthcoming book on “How much is needed? Infrastructure investment for sustainable development.”



Henri Waisman

Senior Researcher in the Climate Group, Coordinator of Deep Decarbonization Pathways Projects, Institute for Sustainable Development and International Relations (IDDRI)

Henri Waisman is a senior researcher in the Climate Program, in charge of activities on long-term low-carbon development trajectories. He is the coordinator of the Deep Decarbonization Pathways Project (DDPP), which structures a collaboration with international partners to mobilize long-term analysis as a tool to support the policy process set in motion by the Paris Agreement. He joined IDDRI in December 2013. After he graduated at Ecole Normale Supérieure de Lyon, Henri joined the energy-climate modeling team at the Centre International de Recherche sur l'Environnement et le Développement (CIRED) in 2005. He holds a PhD from the Ecole des Hautes Etudes en Sciences Sociales (EHESS) in Economics, that focuses on the links between climate change mitigation policies, international energy markets and urban dynamics. Henri is a member of the Intergovernmental Panel on Climate Change (IPCC), as Lead Author for the Special Report on 1.5C.

Session 6: Capturing technological disruptions and behavioural change in long-term energy scenarios

10 June (16:00 – 17:30 CET)



Doug Arent

Executive Director, Strategic Public-Private Partnerships, NREL

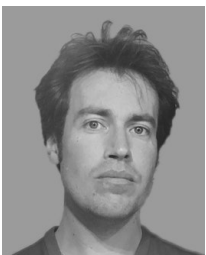
As executive director, Doug Arent focuses on strategic public and private partnerships with NREL to transform energy economies at speed and scale across the globe. Arent has worked in research on energy and sustainability for more than 30 years, publishing extensively on topics within clean energy, renewable energy, power systems, natural gas, and the intersection of science and public policy. In addition to his NREL responsibilities, Arent is senior visiting fellow at the Center for Strategic and International Studies. He serves on the World Economic Forum Future of Electricity Working Group and advisory boards for the Post Carbon Transition Program at the Institute for New Economic Thinking at Oxford University, U.K.; the Smart Electric Power Association; and the Energy Academy of Europe, Netherlands. He is also member of the Keystone Energy Board. Arent is the editor in chief for *Renewable Energy Focus* and is associate editor for the journal *Renewable and Sustainable Energy Reviews*. Arent has a Ph.D. from Princeton University, an MBA from Regis University, and a bachelor's of science from Harvey Mudd College in California.



Charlie Wilson

Researcher, Tyndall Centre for Climate Change Research, UK

Charlie Wilson is a researcher in the Tyndall Centre for Climate Change Research, for which he helps coordinate the Accelerating Social Transitions research theme. His research focuses on ways to reduce emissions to net-zero, with a particular interest in the relationship between people and technology. He is also a faculty member in the School of Environmental Sciences at the University of East Anglia (UEA), and a visiting research scholar at the International Institute for Applied Systems Analysis (IIASA) in Austria. Charlie's research interests lie at the intersection between innovation, behaviour and policy in the field of energy and climate change mitigation. He works at both a systems level and at a micro level. He joined the Tyndall Centre and UEA in September 2010 from the London School of Economics where he taught courses on technological change and business sustainability. He has a PhD from the University of British Columbia in Canada on the social and behavioural determinants of energy use. Prior to his PhD, Charlie worked for a number of years in the private sector in both renewable energy finance and climate change policy.



Daniel Crow

Energy & Climate modeler, International Energy Agency (IEA)



Elena Verdolini

Professor, University of Brescia; Senior Scientist, RFF-CMCC European Institute on Economics and the Environment, Milan

Elena is Senior Scientist at EIEE where she leads the research area on Sustainable Innovation, and Professor in Political Economy at the Law Department, Università degli Studi di Brescia. Elena is a Lead Author of the 6th Assessment Report of the IPCC in Working Group III and the Principal Investigator of 2D4D “Disruptive Digitalization for Decarbonization” project, a 5-year European Research Council Grant. She has been involved in several internationally funded research projects (INNOPATHS, CD-LINKS, ENTRACTE, ICARUS among others). Elena holds a degree in Political Science from the University of Pavia, a Master of Public Administration and a Master of Arts in International Studies from the University of Washington, Seattle and a PhD in Economics and Finance of the Public Administration from Università Cattolica del Sacro Cuore, Milan. Her main interest is in applied analysis, with a focus on the dynamics of innovation, technology transfer, green growth, and the economic and social impacts of environmental and energy policies. Within 2D4D, she will research the energy and socio-economic implications of key digital technologies in three hard-to-decarbonize sectors: Industry, Transport and Buildings.

Organising team



Pablo Carvajal

**Programme Officer – Clean Energy Transition Scenarios,
International Renewable Energy Agency (IRENA)**



Nadeem Goussous

**Associate Professional – Clean Energy Transition Scenarios,
International Renewable Energy Agency (IRENA)**



Pauline Fulcheri

**Intern – Clean Energy Transition Scenarios Outreach,
International Renewable Energy Agency (IRENA)**