

Entecht 21-22 World Congress Virtual

TECHNOLOGY EMPOWERING THE LOW CARBON TRANSITION EUROPES LEADING SUMMIT SHOWCASING THE REAL IMPACT OF TECHNOLOGY AND INNOVATION ON THE ENERGY VALUE CHAIN

IN ASSOCIATION WITH

SUPPORTING SPONSORS



21-22 & 28-29 SEPTEMBER 2021 | VIRTUAL

AGENDA

EnTech sits at the heart of the power sector transformation and will enable networks, utilities and investors to chart a path between the three Ds: digitisation, decentralisation and decarbonisation and the electrification of industry and transport.

Simplifying the complexity of the transformation, the event will bring together decision makers from across Europe and the UK to harness the power of disruptive technologies such as IoT, smart meters, energy management systems, software and automated platforms.

For further information contact Paul Collinson 🗹 pcollinson@solarmedia.co.uk

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Welcome

'Not fit for purpose'. Europe's distribution grids 'need up to 425bn euros of investment to enable the energy transition'. And that's just Europe. This investment needs to happen between now and 2030 to ensure grids can handle increasing volumes of intermittent renewable energy and the expected electrification of transport.

The energy transition is well underway across the entire power sector; one of EnTech's main aims is to guide the industry and help it to hit net-zero targets through digitisation. Technology lies at the heart of the power sector transformation, posing both solutions and problems – EnTech will explore how businesses, from generation to distribution and consumption are turning these challenges into opportunities and bring together innovators and disruptors who are leading in the face of electrification.

Major challenges brought about by the scale-up of renewable and distributed assets are around intermittency, the move to decentralised generation and the need for an increasingly flexible grid. EnTech will bring together some of the key pieces of this puzzle, with a focus on electrification, connectivity and monitoring as well as strengthening networks and infrastructure.

The role that disruptive technologies such as IoT, smart meters, Energy Management Systems, software and automated platforms will play is clear, but the rapid uptake and need for these systems in place across networks can bring about many challenges.

EnTech will provide you with vital informative and thought-provoking content designed to solve challenges around intermittency, monitoring and connectivity, capturing and understanding data and cybersecurity enabling you to get on with the job of getting power to where it's needed reliably.

I look forward to welcoming you to the event!



Lucy Jacobson Durham Event Producer lucy@solarmedia.co.uk



Our mission

To inspire change and create the knowledge and networks that will accelerate a decentralised, intelligent and sustainable energy market

Our approach

EnTech is far more than just another technology event – our unique proposition is that we are obsessed with delivering unique insights creating dialogue and partnerships thatcan't happen behind a desk.

Your customers attend this summit to better understand the technology disrupting the market and to seek help with making the right investment in their digital transition.

As technologies evolve at pace and we see IoT, Data Analytics, AI, Automation, Robotics play a pivotal role in the future of the energy sector, only the most innovative players will succeed; now is the time to invest in marketing and business development that puts your unique proposition and brand at the forefront of decision makers minds.



Our commitment

To our commercial partners, we are committed to delivering ROI and optimising your time and budget; whether you want to fuel a sales team with new leads, heighten your brand or launch new products, no one is better placed to help than our team.

Thank you for taking the time to discuss our offering and we look forward to taking this exciting journey with you.

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Our 2021 Speakers Include:

BEATRIZ CRISÓSTOMO MERINO Head of Innovation Management

IBERDROLA

TEMA BENHALIMA-BOUVILLE Head of Strategy & Transformation

ENGIE

NORTHERN

KAREEN BOUTONNAT CEO of Europe & International LIGHTSOURCE BP

ERNESTO CIORRA Chief Innovability Officer **ENEL GROUP**



KRISTINA HAVERKAMP



Deputy Director, Managing Director Innovation & DENA (DEUTSCHE Technology Center INTERNATIONAL **ENERGIE-AGENTUR**)

LUIS ARTURO HERNÁNDEZ SALMERÓN Head of Energy





& Flexibility

EDP INNOVATION







CLICK HERE TO SEE OUR FULL LIST OF SPEAKERS

PAULO MONTEIRO Head of Energy Storage Head of Technology & Innovation E-REDES

ERIC MEYERS Vice President, Chief Information Security Officer NEW YORK POWER AUTHORITY



GRAHAM CAMPBELL Head of Distribution

System Operations SP ENERGY

SENIOR LAURA SANDYS REPRESENTATIVE CHALLENGING IDEAS NORTHERN POWERGRID



OCTOPUS ENERGY

GENERATION

LIMEJUMP

RICHARD WILES

& Ireland

TRILLIANT

Vice President Sales, UK Head of Security Privacy

ZOISA NORTH-BOND JOJO HUBBARD CEO OCTOPUS ENERGY **ELECTRON** FOR BUSINESS AND

TOBY FERENCZI Director of International

Head of Smart Grid Development UK POWER

Lead

ROBERTO ZANGRANDI Secretary General E.DSO



JONATHAN BERRY Head of Data & Digitalisation WESTERN POWER DISTRIBUTION



NETWORKS

STEWART REID Head of Future Networks

AIDAN O'SULLIVAN

Associate Professor,

Energy & Artificial

Intelligence

UČL



CEO

OCTOPUS CENTRE

FOR NET ZERO

DAN TRAVERS

Co-Founder

OPEN CLIMATE FIX

SSEN



RICHARD HANSON **Flexibility Services** Development Manager, Market Change Delivery NATIONAL GRID ESO

CHARLES WOOD

Head of New Energy

Services & Heat

ENERGYUK

CAT NEWMAN

GAVIN STARKS Founder **ICEBREAKER ONE**

STUART OKIN

& Resilience

OFGEM

JAN VIEBAHN Data Scientist TENNET

SARA KAYAL

Global Head of PV

Integration

LIGHTSOURCE BP

SENIOR REPRESENTATIVE ELIA GROUP

CLAIRE CURRY

BNEF

BJOERN REINKE CHIARA PETRUZZO VICE CHAIR OF THE Director of Data & Data EUROPEAN POLICY UNIT Science DRAX GROUP EUROPEAN ENERGY

CFFR



COUNCIL FOR

REGULATORS



TEODORA KANEVA Programme Manager, Smart Infrastructure & Systems (Smart Energy & Utilities, Transport)

TECHUK



LAURENCE CARPANINI INDEPENDENT ENERGY INDUSTRY EXPERT

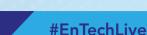
MICHAEL KENEFICK Head of Digital Industry Associate, Decentralised Energy BNEF



SIMON PEARSON Business Leader for Digital & Data ENERGY SYSTEMS

CATAPULT (ESC)





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NETWORKS

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OVO ENERGY









Communities and















DAY ONE: 21 September 2021

	Networks
09:00-09:45	 KEYNOTE PANEL: THE TRANSITION FOR DSO'S: CONNECTING NETWORKS & ACCELERATING DECARBONISATION The roles and responsibilities of DNOs and DSOs globally are changing, and many are adopting strategies specific to the transition to keep up. With an expected boost of billions of Euros into the industry, to reactivate and accelerate the development of European value chains, where assets will be significantly subsidised (in some countries even given for free), will they be able to connect everything that's coming at them? Where are the main areas of focus for DSO investments and strategies?-Digitisation programmes, connecting grid-edge technologies and engaging with consumers Upcoming challenges for DSOs around accelerated decarbonization due to the Green Recovery Fund Digitalisation strategies in place to ensure the continued uptake of digital solutions for networks Reviewing market design to provide adequate regulatory framework Roberto Zangrandi, Secretary General, E.DSO Luis Hernandez, Head of Energy Communities & Networks, E.ON Innovation Graham Campbell, Head of Distribution System Operation, SP Energy Networks
10:00-10:45	 WEATHERING THE STORM: ENSURING NETWORK RELIABILITY As we experience more network constraints globally, pressure is on the transmission and distribution networks to ensure a smarter, more reliable grid for years to come. The smart integration of renewable energy with the grid is the key, but also the challenge of a generation. How can networks use technology to enhance, automate and connect the existing grid? Making the network more intelligent through increased connectivity and use of IoT platforms in order to communicate with other parts of the grid Solutions such as smart metering, sensors, EV infrastructure and distributed renewables as the key to ensuring better observability and control of the grid now and for the future Stewart Reid, Head of Future Networks, SSEN Paulo Monteiro, Director of Technology & Innovation, E-REDES Sotiris Georgiopoulos, Head of Smart Grid Development, UK Power Networks
11:00-11:30	CASE STUDY: CONNECTING THE DOTS: ASSET MANAGEMENT FOR NETWORK MANAGEMENT Connecting customers and creating a smart network on the Isle of Man.

Richard Wiles, Vice President Sales, UK & Ireland, Trilliant

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DAY ONE: 21 September 2021

11:45-12:30	 ARE UK NETWORK STRATEGIES FIT FOR PURPOSE? Digitalisation and futureproofing are key for networks across the world, but the UK DNOs are steaming ahead with future planning and setting rules and standards for the next 5 years to ensure that targets are met. This session will examine whether the current strategies are fit for purpose, and where they need to get to if not. What does 'digital' mean to the networks, and how are they ensuring that their intentions from the RIIO2 strategies translate into real-life benefits? How do networks plan on making digital inclusion work for everyone? What happens to the data they capture through the rollout of sensors, IoT platforms and how will it be used efficiently and ethically? Jonathan Berry, Head of Data & Digitalisation, WPD Laurence Carpanini, Independent Energy Industry Expert Matthew Billson, Deputy Director & Head of Energy Innovation Strategy, Department for Business, Energy and Industrial Strategy (BEIS)
12:30-13:00	SPEED NETWORKING
13:00-15:00	LUNCH BREAK
15:00-15:30	CASE STUDY: WHERE OHMS LAW MEETS MOORE'S LAW-ENERGY MOVING AT THE SPEED OF TECHNOLOGY
13.00-13.30	For 130 years, not much has changed with how we think about energy and power systems. Decarbonisation and advances in IoT, plus information and communication technologies opens the door to new ways of thinking about energy and power systems. • The digitalisation of energy will re-invent the grid to resemble a mesh network or a system of systems that looks more like the Internet or a web of energy systems • Sector coupling and decentralization will bring networking, 5G, cloud, cloud native, and edge together to build high-velocity, high-volume data environments to
	control, orchestrate, and choreograph energy
	• A low inertia grid will require us to completely rethink the people, processes, and technology necessary to decarbonise at scale and with speed
	Shuli Goodman, Executive Director, LF Energy

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DAY TWO: 22 September 2021

	International Case Studies
09:00-10:00	KEYNOTE PANEL: POLICY TO FIT A CHANGING ECONOMY: DIGITISING POLICY As the market focus shifts and urgency increases, policy also needs to evolve to keep up with the pace of change. What policy and regulatory changes are needed to tackle challenges like network and infrastructure updates in European markets, and what kind of policy does a digitised power sector need? Roland Roesch, Deputy Director, Centre for Innovation & Technology, IRENA Charles Wood, Head of Policy & New Energy Services, EnergyUK Jane Dennett-Thorpe, Deputy Director, Decarbonisation & Energy Transition, Ofgem Chiara Petruzzo, Vice Chair of the European Policy Unit, Council of European Energy Regulators (CEER)
10:15-11:15	EUROPEAN SHOWCASE SESSIONS These sessions are all about showcasing innovative projects or initiatives, and a way to directly interact with some of the market leaders in the European transition.
	SHOWCASE ONE: GERMANY'S DRIVING FORCE IN FOSTERING START-UP TALENT & DRIVING THE 'ENERGIEWENDE' What is Germany doing right when it comes to creating an environment for companies to innovate, showcase and trial their business models for future energy services in the power sector? Kristina Haverkamp, Managing Director, Deutsche Energie-Agentur (dena)
	SHOWCASE TWO: DENMARK'S AMBITIOUS DATAHUB INCREASING TRANSPARENCY AMONGST EUROPEAN TSO'S Denmark is a great example of sharing data openly within the energy industry and showcasing datasets which can be widely applied. This session explores what can happen when Open Source principles are applied, making technology and software-related collaboration a reality. Martin Lervad-Lundø, Vice President & CEO, Energinet DataHub
	SHOWCASE THREE: NORDIC CASE STUDY: REACHING 100% RENEWABLE POWER FOR BUSINESSES What technology-driven solutions does it take to power businesses and large energy offtakers on a 100% renewable basis, providing 24/7 tracking and renewable matching techniques? Marcus Melin, Strategic Energy Advisory, Vattenfall Sweden

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DAY TWO: 22 September 2021

KEYNOTE PANEL: TRANSITION IN A NEW ERA AND BUILDING FOR THE FUTURE 11:30-12:30 • How has lockdown impacted future planning for networks, grid operators and utilities? How will the transition be further shaped by shifts in the economy? • The changing landscape in demand and supply for consumers throughout the pandemic, how networks and utilities are tackling this and preparing for a postlockdown economy • Dealing with the move away from cities and the effect on the power industry • Private sector leadership on how to make the transition attractive for utilities and legacy energy companies Ernesto Ciorra, Chief Innovability Officer, Enel Group Tema Benhalima-Bouville, Head of Strategy & Transformation, ENGIE Beatriz Crisóstomo Merino, Head of Innovation Management, Iberdrola Kareen Boutonnat, CEO Europe & International, Lightsource BP RETHINKING ENERGY MARKETS AND UNLOCKING THE VALUE OF DISTRIBUTED ENERGY RESOURCES 12:45-13:30 This session will cover how the requirements of market design for a digital energy sector are changing, new markets are forming and sometimes the old ones simply aren't fit for purpose. How should the sector rethink energy markets? • How are regulators and those setting market rules thinking ahead to accommodate the necessary changes and enabling new regulatory design? • Local energy markets and their role in the new market design • Finding a way to decarbonise flexibility markets whilst enabling and encouraging active consumer participation at the same time • Digital platforms emerging to streamline and enable new market designs, and help with flexibility management • What is standing in the way of growth and what will it take to scale to full potential? Richard Hanson, Flexibility Services Development Manager, Market Change Delivery, National Grid ESO JoJo Hubbard, CEO, Electron Ed Gunn, Commercial Director, Moixa 10

13:30-14:00 SPEED NETWORKING

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DAY THREE: 28 September 2021

	Data and Cyber Security
09:30-10:00	SPEED NETWORKING
10:00-11:00	 ENHANCING DATA & COLLABORATION FOR AN INTERCONNECTED ELECTRICITY MARKET Exchange and interoperability of data is a very prevalent topic, and as such poses a challenge on best practice and how to make the most of available data to accelerate the transition in a collaborative way. Making data 'open' - what does this really mean and how should the industry go about debunking myths around open data? How can we ensure that all streams of data flow are being shared in a way that is accessible to consumers and all parts of the value chain? What is being done at the regulatory level to standardise processes and move towards a more finetuned system when it comes to data? What can we learn from other industries like Open Banking and FinTech? Teodora Kaneva, Programme Manager, Smart Infrastructure & Systems (Smart Energy & Utilities, Transport), TechUK Gavin Starks, Founder, Icebreaker One Simon Pearson, Business Leader for Digital & Data, ESC Josh D'Addario, Senior Consultant, The Open Data Institute
11:15-11:45	SPONSORED PRESENTATION FROM SMITH INSTITUTE
12:00-14:00	LUNCH BREAK
14:00-14:45	 PANEL: WILL DATA CENTRES BECOME THE 'FOURTH UTILITY' OF THE FUTURE? The world runs on data, therefore the data centre of the future needs to be decarbonised. In our increasingly digital world, these facilities play a much more important role than they used to, and this is predicted to keep on growing. The importance of decarbonising data centre infrastructure and increasing efficiency Data centres' positioning at the intersection of energy efficiency, renewable energy and a data economy enabled by digitalisation Partnering with 'green' utilities in order to ensure the power supply is clean from the get-go The importance of regulating data centres' energy usage John Booth, Consultant, Carbon3IT Sean Ratka, Associate Programme Officer, Officer of the Director, Innovation & Technology, IRENA

DAY THREE: 28 September 2021

15:00-15:45

BEHIND THE FIREWALL: THE EVOLUTION OF CYBERSECURITY IN THE UTILITY INDUSTRY

Hacking and cyber-threats pose a huge problem for a utility sector under constant transformation and digitalisation. What can the sector do to protect itself and its customers' data?

- How can we enhance our collective defence in terms of cybersecurity and work collaboratively as an industry?
- What solutions can security companies offer to ease the worries for utilities?
- The standardisation of cybersecurity protocols for the industry
- What needs to happen from a regulatory perspective to ensure that increasing frequency of signals and the move towards a smart grid doesn't have a detrimental effect on the industry?

Eric Meyers, VP & CISO, New York Power Authority

Stuart Okin, Head of Security Privacy & Resilience, Ofgem

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DAY FOUR: 29 September 2021

	Disruption, Automation & Al
09:00-10:00	 <u>KEYNOTE PANEL:</u> BEYOND THE INCUMBENTS: DISRUPTING THE POWER SECTOR WITH TECH-DRIVEN CUSTOMER UTILITIES A new era of energy provider has been taking the industry by storm for some time and continues to challenge the position of the incumbent utilities and suppliers in the industry globally. How utilities and retailers with technology at their heart are driving the transition and setting standards for the industry
	How do you leverage smart home and smart meter data for the benefit of consumers?-Putting consumers in the driver's seat
	 Using digital innovation to monitor and manage energy consumption, as well as using data for future proofing and planning Virtual Research Plants and the surger and a function of the surger and the surger
	 Virtual Power Plants unlocking more value for customers Toby Ferenczi, Director of International, Ovo Energy
	Carolos Vidalis, Propositions & Strategy Lead, Centrica
	Zoisa North-Bond, CEO, Octopus Energy for Business
	Kristina Haverkamp, Managing Director, Deutsche Energie-Agentur (DENA)
	Geraldine de Boisse, Vice President, Innovation, Bulb
10:15-11:00	 PANEL: IS THE POWER SECTOR UNDERESTIMATING THE VALUE OF AI & AUTOMATION? Al is no longer a technology of the future; it is very much the here and now. Renewed support from governments and research centres with AI and Machine-Learning at their core is driving the adoption of these technologies within businesses. The industry needs to understand how to go beyond AI to machine learning and automation. The path to 'explainable AI' for the power sector
	 Developing AI and data-led tools that businesses need to accelerate the uptake of clean technologies around the world
	• A broad reach: How AI can be implemented across the value chain from utilities to smaller suppliers and the transmission & distribution level?
	• As a business, what can you do to scale-up and build AI solutions internally?
	Aidan O'Sullivan, Associate Professor, Energy & Al, UCL
	Claire Curry, Head of Digital Industry, BNEF
	Dan Travers, Co-Founder, Open Climate Fix
	Giuseppe Amoroso, Head of Digital Strategy & Governance, Enel Group

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DAY FOUR: 29 September 2021

PANEL: AUTOMATION IN A DECENTRALISED WORLD 11:15-12:00 It is undeniable that the system and networks are becoming increasingly decentralised and will continue to do so. What are the main challenges faced by system operators and how can advanced analytics and AI be implemented to overcome them? • How can networks manage and connect the abundance of flexible assets through use of automated platforms? - DERMS platforms for high voltage areas • How can automation and AI smooth over intermittency issues with renewable penetration on the grid? Does everything need to be automated and if not, what is most important? • Relevant requirements for developing AI at a transmission level to create efficient test-beds for future operations • TSOs leading the charge on advanced analytics & AI for system operation Michael Kenefick, Associate Director, Decentralised Energy, BNEF Jan Viebahn, Data Scientist, TenneT Cat Newman, CEO, Limejump Bart, Elia Group PANEL: LONG-TERM RESILIENCY: HOW CAN ASSET OWNERS MAKE DIGITAL OPERATIONS SELF-SUSTAINING? A growing challenge for utilities and asset owners is enhancing long-term resiliency and obtaining real-time data, so they can make informed decisions on behalf of their customers and simultaneously increase the life-span of their generation assets. • How can technology transform operational challenges in the renewable era into an opportunity? • Optimisation and maximising value when renewable assets are in operation • How should we go about securely transitioning the utility business model to remain resilient using technologies such as IoT, AI and cloud services? • Creating proof of concept and adding value with technology Oliver Abell, Head of Digital Ventures, SSE Renewables Senior representative, Lightsource BP Senior representative, QUORUM

CLOSE OF CONFERENCE

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Meet the Team & Get Involved



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