3-5 October 2017
THE NEC, BIRMINGHAM, UK

UK’s biggest Solar & Storage show in 2017

3,887 visitors in 2016
50 strategic partners across industry, government and NGOs
85.5% of attendees rate the show good, very good or exceptional

FEATURING OVER 70 SPEAKERS, INCLUDING:

PAUL MASSARA
CEO
Data and machine learning for PV and storage

FAITHFUL CHANDA
Future Networks Engineer
The future role of the DNO with energy storage

JONATHAN BATES
Director, General Manager
Inverter mis-selling what’s the extent of this?

ABE CAMBRIDGE
Solar Entrepreneur & Founder/CEO
How is blockchain revolutionising payments in Africa?

MIKE O’HARE
Senior Development Manager
Opportunities with EVs at scale

Solar | Storage | EV | Smart Tech | BlockChain | Data

uk.solarenergyevents.com
**Day 1: 3 October**

**3-5 October 2017**
**THE NEC, BIRMINGHAM, UK**

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**Session sponsors**

10.00 CHAIR’S OPENING REMARKS
REA | James Court, Head of Policy

10.00 POLICY UPDATES
- Impact of the Smart Power Call for Evidence
- What BEIS and Ofgem learned from the consultation?
- What will be the first action to be taken?
- What features in the Clean Growth Plan (former Emission Reduction Plan)
- Embedded benefits update
- Timelines and outcomes

ELECTRICITY STORAGE NETWORK | Georgina Penfold, CEO

10:30 NATIONAL GRID GUIDELINES ON PRODUCT STANDARDISATION
- System Needs and Product Strategy release
- How will the frequency response market change
- What has NG learned from storage being part Demand Turn Up over the summer
- What is NG’s take on DNOs and storage ownership?
- Timelines and outcomes

NATIONAL GRID | Rhiannon Marsh, Power Responsive Manager

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**11:00 BLOCKCHAIN FOR INSTALLERS**

- What’s a blockchain and what’s in it for you?
- SolarCoins: could they represent an additional revenue opportunity?
- How SolarCoins are collected: see it live on someone’s house

ELECTRICCHAIN | Steven Campbell

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**12:00 - 13:30 UPDATE ON THE IET’S 18TH EDITION OF THE WIRING REGULATIONS**

- Proposed changes to BS7671 IET Wiring regulations – 18th Edition
- Why the regulations change
- Overview of the proposed changes
- Q&A

CERTSURE | Alan Wells, IEng MIET - Technical and Standards Director

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**14:00 COMMUNITY ENERGY PROJECTS**

- Overview of the community energy industry
- Policy affecting projects
- Key success factors to getting projects done
- Financing options for community energy projects
- The evolving regulatory picture
- Benefits beyond green power
- The Wise Minds Report - how are large utilities coping with the energy transition?

SOLARPLICITY | Tim Day, Commercial Director

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£499

**REGISTER FREE**

**10:30 UK HOUSING STOCK – CURRENT AND FUTURE OPPORTUNITIES**

- How are housing developers modernising new build projects and what methods are they employing to ensure that developments meet future environmental needs?
- Housing developers speak about their plans for PV on new development
- Solarplicity Case Study: Fully funded community energy schemes
- Update on new projects in development

SPECIFIC INNOVATION AND KNOWLEDGE CENTRE | Dr Jonathan Williams, Business Development Manager

WESTERN SOLAR | Glen Peters, CEO

JOJU SOLAR | Chris Jardine, CEO

SOLARPLICITY | Tim Day, Commercial Director

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**REGISTER FREE**
11:00 NETWORKING REFRESHMENT BREAK

11:30 THE EVOLVING ROLE OF DNOS IN ENERGY STORAGE
- What do DNOs need in the transition to DSOs?
- Impact of mass vehicle adoption on local networks – thresholds and solutions
- The continued debate around storage ownership
- What is DNO’s role in the flexibility markets?
WESTERN POWER DISTRIBUTION | Faithful Chanda, Future Networks Engineer

12.00 CASE STUDY: EFR
- Technical considerations for EFR services
- Deployment and construction timelines
- Lessons learned from design
- Revenue stack and the residual asset value.
NEC | Roger Lin, Director of Marketing

12:30 NETWORKING LUNCH BREAK

14:00 DEVELOPERS AND FINANCIERS DEBATE
Following the Energy Storage Summit earlier in the year, the feedback was that investors were calling developers lazy and vice versa.
So for this session we have decided to host a debate where investors and developers can talk about risk, where it lies, where it should lie and who needs to become more flexible.
Moderator:
FOOT ANSTEY LLP | Chris Pritchett, Head of Energy
MACQUARIE | Jim Lee, Associate Director, Energy Asset Finance
INGENIOUS | Roberto Castiglioni, Investment Director

14:30 COMMERCIAL SOLUTIONS FROM SMA
- The Sunny Tripower CORE1
- How to reduce installation time
- What are the returns on investment
- Energy storage inverter and installation training
- Best practice lessons
SMA | Richard Batty, Key Account Manager

15:00 NICEIC TRAINING OVERVIEW
- The various certification processes (C&G, EAL, NICEIC Certification, A certificate of achievement
- Overview of EV, Solar PV, Data cabling Courses
- Overview of course in Development- Energy Storage
CERTSURE | Darren Smith - Electrotechnical Training and Business Development Manager

15:30 SELF-REGULATION FOR DOMESTIC STORAGE
STAs Storage Commitments – Official Launch at Solar and Storage Live
- How do we encourage best practice and high industry standards without regulation
- Understanding the STA Commitments and why they should be followed by all installers
- Pros and cons of a formal regulated storage market
SOLARCENTURY | Andrew Crossland, Energy Storage Engineer
ROCK CLEAN ENERGY | Chris Roberts, Founder
STA | Chris Hewett, Policy Manager
Day 1: 3 October

16:00 MARKET DESIGN: HOW CAN SMART ENERGY DATA MAKE THE ENERGY SYSTEM MORE EFFICIENT?
- The role of domestic energy storage (electricity and heat)
- Incentivising automation at industrial, commercial and domestic levels
- The role of the Connected Home in network management
- The importance of real-time energy data
- A cross-industry view on the design of markets and BEAMA’s work on driving innovation

BEAMA | Jeremy Yapp, Deputy Director, Smart Metering

“This was a great opportunity to network with a large number of companies and gather different perspectives on the development of technologies and the market”
Alex Daynes, Sales Manager, ENERCON GmbH-UK

15:00 NETWORKING REFRESHMENT BREAK

15:30 CASE STUDY: NEW BUILD SOLAR+STORAGE
What is the revenue stack behind this project?
What is the type of funding?
How to make post-subsidy solar happen: site selection, grid connection?
- PPA terms and storage contracts length
- Technical & design considerations

ANESCO | Chris Miles, Business Development

16:00 CASE STUDY: TURNKEY STORAGE SOLUTION FOR FFR & MICROGRID

SUNGROW- SAMSUNG SDI | Dr Cai Zhuang, Director

“This is one of the shows I make sure to attend every year because of the quality of presenters and presentations in the various theatres”
Louis Shaffer, Distributed Energy Segment Manager EMEA, Eaton Corporation
10:00 OPENING REMARKS FROM THE CHAIR
REGEN SW | Merlin Hyman, Chief Executive

10:10 POLICY UPDATE FOR INSTALLERS
OFGEM and BEIS CFE:
- Enabling storage by removing policy and regulatory barriers
- Improving price signals for flexibility with half-hourly settlement (through smart meters) and smart tariffs to incentivise consumers to use, store and export electricity at times that are most beneficial or least costly to the system
- A system for the consumer – smart appliances to optimise energy use (Government envisages that appliances with high potential for DSR should have the capability to respond to signals to alter how and when they consume energy)

Ways to encourage uptake:
- Smart appliance labelling
- Regulation of smart appliances
- Requirements for appliances to be smart

Consumer protection issues:
- Social impacts – requirement for measures that deliver clearer price signals to consumers, such as smart tariffs
- Data and privacy – need for appropriate privacy safeguards to be in place for handling personal data eg. patterns of energy use
- Informed consumers - particular information needed to help consumers understand the benefits available to them

10:30 COMMUNITY ENGAGEMENT
- How to engage with communities in a real and meaningful way
- An overview of what works and what doesn’t and some information about how effective companies have gone about this?
- Why do some projects fail to resonate with communities?

REGEN | Jodie Giles, Senior Manager, Community Energy Lead

11:00 ARE ELECTRIC VEHICLES THE KEY TO IMPROVING AIR QUALITY IN THE UK?
- Air quality – how bad is it?
  - What are we referring to when we talk about ‘air pollution’?
  - The health impacts of poor air quality

10:00 HOW TO DELIVER POST SUBSIDY SOLAR PROJECTS IN 2018
Update from Solar Media: what is the UK PV pipeline?
- How much is in planning?
- Where are projects being developed?
- What kind of sizing are we seeing?

Discussion with the audience and panel
- The reality of project economics now
- Opportunities to work with communities and community groups
- Longer term, how are companies developing sustainable business models?
- Looking to the future, how is the role of the developer changing?

NFU | Jonathan Scurlock, Chief Adviser, Renewable Energy and Climate Change
BRITISH SOLAR RENEWABLES | David Peill, Commercial Director
SOLAR MEDIA MARKET INTELLIGENCE | Finlay Colville, Head of Market Research
PUSH ENERGY | Peregrine Fraser, CCO

11:00 NETWORKING REFRESHMENT BREAK

10:00 HOW TO BUY LOW CARBON SOLUTIONS
- Solar, storage EVs, efficiency…
- Understanding what the industry is trying to sell you
- What questions should you ask an installer or provider?
- How to really tell if the energy will cost less
- What are the other benefits beyond cost, and being green(er)

EGNIDA | Andrew Padmore, CEO
Day 2: 4 October

11:20 SUCCESSFUL OPERATION OF LARGE SCALE BATTERY STORAGE ASSETS
- Passing commissioning tests
- Meeting the requirements of the grid services contract
- Ensuring safety performance for a battery storage asset
- Optimising maintenance and inspections
- Getting the most from equipment supplier warranties
- Monitoring battery health

RES GROUP | BRIAN DARNELL, HEAD OF SOLAR AND O&M

11:35 OPERATIONS AND MAINTENANCE
- Solar asset optimisation, including examples of the techniques currently used by owners to maximise the technical and financial performance of their portfolios
- O&M selection and how to get the best out of your new contract
- Warranty expiration: Where and when will the contracts expire and the factors that must be considered in the negotiation process.
- Repowering: When is the right time to do this and where are the new opportunities to win business?
- Reflections on the last 5 years of solar farm operations. What has been successful? What lessons have we learned? What would we do differently?
- What innovations are on the horizon in solar O&M that could bring about the next step change in performance and/or cost? How will the automation revolution change O&M? How can we accelerate these changes?

RES GROUP | BRIAN DARNELL, HEAD OF SOLAR AND O&M

11:45 ELECTRIC VEHICLES
- How much better are they than the rest - EV emissions vs. petrol, diesel, LNG.
- Current and projected market share
- The barriers to being taken to scale (inadequate charging infrastructure, Electric Drivetrains are unsuitable for HGVs, price, etc)
- Conclusion – they are a large part of the solution but technological innovation needs to be accompanied with policy innovation that:
  - Incentivises EV and removes incentives for diesel
  - Drives increased efficiency in the transport of goods through existing vehicles (the average LGV in London has 30% of their load capacity at any given time)
  - Delivers a national network of Clean Air zones

CLIENT EARTH | Dominic Phinn, Business Engagement Co-Ordinator, Clean Air

12:00 IRELAND UPDATE
- Solar Intel update on the market pipeline
- We are now in a consultation period – what research is the consultation document based on?
- How might figures compare now, and what does this tell us about the assumptions being made
- What's covered in the consultation in terms of technology?
- Are the drivers behind rooftop starting to make economic sense? What are the barriers in terms of planning permission, mortgage holders, payback times etc.?
- Are we likely to see companies selling pipeline?
- Who’s willing to finance development?

SOLAR ELECTRIC IRELAND | Robert Goss, Director
SOLAR MEDIA MARKET RESEARCH | Lauren Cook, Analyst
14:00 PRODUCT SHOWDOWN
Find out about the world leading manufacturer of E-STOR energy storage systems
• Storage systems installed and working since 2014
• A scalable range from 60KW to 1MW+ providing full turnkey solutions from feasibility through to operation
• Cloud based monitoring, managing and reporting
• Fully financed solutions
CONNECTED ENERGY | Matthew Lumsden, Managing Director

14:30 COMMERCIAL SOLUTIONS FROM SMA
• The Sunny Tripower CORE1
• How to reduce installation time
• What are the returns on investment
• Energy storage inverter and installation training
• Best practice lessons
SMA | Richard Batty, Key Account Manager

15:15 STORAGE FROM AN INSTALLER PERSPECTIVE
T4 SUSTAINABILITY LTD | Paul Chandler, Development Director

15:30 SOLAR & STORAGE IN AFRICA HOW IS TECHNOLOGY CHANGING THE GAME?
• Blockchain: how are we enabling people to buy solar in Africa?
• Case study: solar clinics in Nigeria
SUNEZXCHANGE | Morwesi Ramonyai, Director
AFRICA POWER STORAGE | Mike Rosenberg, CEO

14:00 ENERGY SERVICE COMPANIES (ESCOS) – WHAT ARE THEY AND CAN THEY WORK FOR YOU?
• Opening up the supply market – municipal and not for profit energy companies
• Progress in municipal supply – Robin Hood Energy/Bristol Energy
• New operating models – ESCOs and the energy transition
• Future scenarios for energy utilities
• Governance, ownership and community benefit
MUNICIPIA | Mark Bramah, Managing Director

14:45 OPPORTUNITIES IN EUROPE FOR NEW BUILD
• Which countries shall deliver stability and growth?
• Newest auctions: Spain and France
• What capacity is left for support mechanisms in Europe?

13:45 C&I FOCUS: HOW TO WIN BUSINESS
• What has the impact of the business rate increase been?
• Deal flow in 2017 – where have we seen deals happening, what did they have in common and how were they closed?
• Exploration of recent PPAs – viewpoints from the developer/installer and the off-taker
• Methods to approach a deal
  o Who are you selling to?
  o What are you actually selling them?
  o Handling objections
• Understanding your clients’ needs and designing the solution
• PPAs Vs on-site generation
• The impact of the falling pound on cost
• A discussion around Brexit uncertainty: is this creating delays in decisions?
JOJU SOLAR | Chris Jardine, CEO
CAPLOR | Gareth Williams, Managing Director

14:40 SHADY PRACTICES: INVERTER UPGRADE MISSELLING
There is increasing disquiet in the solar industry about of cold calls to domestic owners of solar PV installations, wrongly telling them their solar installer has gone out of business, their inverter is out of warranty and they could lose Feed in Tariff payments. The callers sometimes pose as the manufacturer of the equipment which they say will increase energy yield by ‘up to 25%’. This panel will ask whether this is something that the industry should address, and look at what could be done to protect consumers and the reputation of the industry.
• What’s been uncovered and what’s happening?
• What’s the real likely lifespan of your inverters and what difference would exchanging them really make?
• How can we communicate better to clients
• Input from STA, MCS, and RECC (invited)
VIRIDIAN SOLAR | Stuart Elms, Chief Executive
PHOTON | Jonathan Bates, Director, General Manager
MCS | Griff Thomas, Management Panel Representative
• Looking beyond the FiT to subsidy free business models, success stories in the open market
LIGHTSOURCE | Nick Robb, Head of Development - Ireland
AMARENCO | John Mullins, CEO
FORESIGHT LLP | Federico Giannandrea, Head of Foresight Italy

15:20 NETWORKING REFRESHMENT BREAK

15:40 FUTURE SOLAR: IN THE EU
• How is the development business model changing?
• How does solar fit into the wider energy transition (IT, data, storage, V2G, prosumers and decentralised ownership of assets)
• Secondary markets – how are they evolving, in the UK? In the EU?
• Macros – Brexit, energy prices, politics and global growth in renewable energy
• Technology – new technologies, maturing technologies and cost reduction
SOLAR POWER EUROPE | James Watson, CEO

Now in its fifth successive year, the Solar Power Portal Awards returns to the Hilton Metropole NEC on the evening of Wednesday 4 October 2017 to recognise the best and the brightest of the UK’s clean energy sector.
awards.solarpowerportal.co.uk
10:00 DEMAND RESPONSE USING HEATING NETWORKS - UPDATE FROM GREATER MANCHESTER AUTHORITY AND THE ENERGY SYSTEMS CATAPULT
GREATER MANCHESTER AUTHORITY | Mark Atherton, Assistant Director, Environment, Greater Manchester Environment Team

10:20 THE SMART SYSTEMS AND HEAT PROGRAMME
- Future proof and economic heating solutions to tackle the challenge of decarbonising heat in the UK
- Using technology innovation to address market failure in energy
- Tools developed as part of the SSH programme
- How the Energy Systems Catapult will establish an innovation ecosystem to support the sector
ENERGY SYSTEMS CATAPULT | Richard Halsey, Programme Manager

10:40 VIRTUAL POWER PLANTS – THE NEW DIGITAL MARKETPLACE?
- Connecting energy generators and buyers
- Opportunities created by harnessing smarter tech
FORUM FOR THE FUTURE | Will Dawson, Associate Director, Climate and Energy

10:30 MAXIMISING THE BENEFIT OF SOLAR GENERATION USING ELECTRIC VEHICLE AS DISTRIBUTED ENERGY SOURCE VIA VEHICLE-TO-GRID TECHNOLOGY
- Cenex’s organisation introduction
- Energy System Team infrastructure project experience
- Solar generation with electric vehicle as energy storage in a domestic scenario
- Utilising electric vehicle as distributed energy resources with PV in commercial building scenario
CENEX | Dr Sikai Huang | Technical Specialist

11:00 AN ELECTRIC VEHICLE FUTURE - WHAT ARE THE CHARGING CHALLENGES AND HOW CAN WE OVERCOME THEM?
- What growth can we expect in electric vehicles?
- How will we charge our cars in future - at home, on the road, at work?
- What are the implications for the grid, and how can storage and vehicle-to-grid services help?
- How can communities and business enable the growth in electric vehicle charging requirements?
NATIONAL GRID | Mike O’Hare, Senior Development Manager

10:00 FINANCING LOW CARBON PROJECTS
- Where is new investment coming from?
- What impact would decentralising budgets make?
- Bonds – green and municipal bonds
- Debt and equity
AMBER INFRASTRUCTURE LIMITED | Alex Gilbert, Investment Manager

10:40- 12:10 UPDATE ON THE IET’S 18TH EDITION OF THE WIRING REGULATIONS
- Proposed changes to BS7671 IET Wiring regulations – 18th Edition
- Why the regulations change
- Overview of the proposed changes
- Q&A
CERTSURE | Alan Wells, IEng MIET - Technical and Standards Director

12:10 TAKING A HOLISTIC APPROACH TO THE ENERGY TRANSITION
- How can local authorities take advantage of the energy transition?
- A look into the different technologies with examples of the local benefits they could provide
11:00 NETWORKING REFRESHMENT BREAK

11:30 THE ROLE OF DSOs UNDER THE ENERGY UNION
- The future role and responsibilities of DSOs under the Energy Union
- Enhancing the flexibility of network operation and infrastructure planning
- The impacts of DSOs on the development of smart decentralised infrastructure
- Integrating EVs and storage facilities in distribution grids
- Harnessing the benefits of demand response and self-consumption at distribution level
- Enabling “prosumers” to participate in the market

CLIENT EARTH | Julie Finkler | Law and Policy Advisor

12:00 BLOCKCHAIN, DATA & AI – FINDING SMARTER WAYS TO INCREASE REVENUE
- Why you need to be a data-driven organisation
- The big data tsunami – are you ready to make it useful?
- Case studies from cities and businesses – bringing data and green energy together
- Are we moving towards an energy internet?

NORTH STAR SOLAR | Paul Massara, CEO
OPEN ENERGI | David Hill, Commercial Director
THE SUNEXCHANGE | Abe Cambridge, Solar Entrepreneur & Founder/CEO

12:40 WHAT DOES SETTLEMENT DATA TELL US ABOUT EMBEDDED GENERATION?
ELECTRALINK | Dan Hopkinson, Head of Network and EMI Services

13:00 NETWORKING LUNCH BREAK

11:30 COMPLETING AN EV CHARGING INFRASTRUCTURE PLAN
- How many chargers are needed by type and where to position your charging stations for optimal results
  - What are the vehicle and charger technology trajectories?
  - How many chargers do we need by type, when and where to put them?
  - Who pays for installation? And how is the money spent?
  - Cities vs Highways

ZERO CARBON FUTURES | Colin Herron, Managing Director

12:00 AN INSIGHT INTO LOCAL EV AUTHORITY PLANS IN MOTION:
- How to get other local stakeholders involved and gain buy-in
- How does your EV plan fit in with your wider transport planning?
- Where will the power come from?
- Public opinion of EVs and how to optimise your charging network to suit customer requirements
  - Who uses the stations?
  - Increasing uptake when and how to do it
  - Integrating multiple networks under one system
  - Maximising revenue opportunities by understanding demand

NATIONAL GRID | Mike O’Hare, Senior Development Manager
ZERO CARBON FUTURES | Colin Herron, Managing Director
TRANSPORT FOR GREATER MANCHESTER | Rafael Cuesta, Head of Innovation at Transport

- Energy Service companies: what have we learned from early pioneers?
- Where is the funding coming from
- Public Power Solutions and the energy transition
- Solar canopies and battery storage

APSE ENERGY | Phil Brennan, Head of APSE Energy
APSE ENERGY | Stephen Cirell, Project Lead and Project Management
PUBLIC POWER SOLUTIONS | Richard Sansom, Business Development Manager
PUBLIC POWER SOLUTIONS | Steve Cains, Head of Power Solutions
"This event is a great way to meet suppliers and see new developments in a fast moving industry where change is the future”
George Browning, Partner, GNF & GA Browning