

17 Utilities/
TSOs/DSOs
7 Regulators
17 Countries
40 Topics
50 Speakers

The 6th

Energy Storage *World Forum*



Berlin

23 - 25 April 2013

Kempinski Hotel Bristol

Installation Results / Regulation / Business Case / Standards
Microgrid / Solar / Wind / Power Electronics / Residential Storage



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Programme At A Glance

Monday 22 April	Tuesday 23 April	Wednesday 24 April	Thursday 25 April	Friday 26 April
PRE-FORUM WORKSHOPS	FORUM DAY 1	FORUM DAY 2	FORUM DAY 3	POST-FORUM WORKSHOPS
Energy Storage With Solar	Regulation Solar Business Case Project Results Battery Technology Inverters	Microgrid Market Size Investment Emerging Markets Power Electronics Benchmarking Technologies	Wind Solar Standards Wind-Gas Residential Storage Power Electronics	How To Make Your Energy Storage Project Financeable
Establishing The Real Price Of Energy And Its Storage				Building The Action Plan™ (BAP)

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FIAMM Group, born in 1942, manufactures and distributes batteries for automotive (starter) and for industrial usage (stand-by, emergency), as well as warning devices (clacson and sirens). FIAMM has a global presence in 60 countries worldwide, with around 3000 employees. Today FIAMM Group is also focused on the energy storage systems, with a dedicated business unit; thanks to the unique battery technology "sodium-nickel chloride" FIAMM SoNick, is partner and supplier for advanced solutions on both on-grid and off-grid applications, as well as for electric mobility.

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Since Samsung SDI's establishment in 1970, SDI has continued to strive towards a creative and innovative future. With continuous efforts, Samsung SDI has been creating innovative products with cutting-edge technology that is being experienced by users today. Since 2000, Samsung SDI started to develop lithium ion battery (LIB) technology as a venture division and through hard work and determination, attained the global #1 Position in a very short period of time. The next Generation of Lithium Ion technology is underway and is rapidly expanding at Samsung SDI from sole involvement in digital mobile devices to Electric Vehicles and ESS(Energy Storage Systems).

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Dufresne specialises in creating high-quality market driven conferences and training. The company focuses on energy storage related topics such as the EV Battery Forum, EV Charging Forum and Energy Storage Forum with annual international meetings in Europe and Asia. We believe in creating a platform which facilitates a genuine exchange within the energy storage community. We are committed to provide you with new conference formats which can help you in finding a solution.

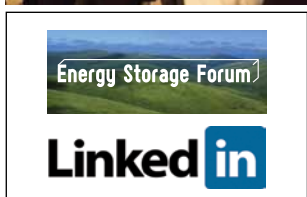


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Join our group  on  <http://goo.gl/ILRjJ>

Discuss with professionals from the value chain. Put forward your questions and get to know your peers before and after the conference so you can gain more learning and networking value.



What's Different?

Hear From 17 Utilities/TSOs/DSOs From 17 Countries. Save time and money, listen to their experiences, results and network with all of them in one place in just 3 days.

7 Regulators And Government Officials From 7 Countries. Worldwide policy and regulation is key for the success of energy storage. Refine your business case by listening and meeting directly with key Government representatives from Europe, Asia and Africa.

Tech Soap Box™ . Listen And Vote For The Best New Cutting Edge Energy Storage Technology. This new format of presenting has been designed to evaluate and promote newly patented Energy Storage solutions. You, the audience, will evaluate the best one and the winner will benefit from a worldwide media exposure. Apply now at: <http://www.energystorageforum.com/europe/programme/tech-soap-box>

5 Days, 40 Topics, 50 Speakers. Learn from a comprehensive programme covering all aspects of Energy Storage. Tailor your learning needs by choosing from 3 Forum days and 4 researched workshops. Save time, ask questions to over 50 different speakers/companies all in the same place.

Build An Action Plan™ (BAP) And Improve Your Business Strategy. All of our Forums culminate with a workshop where conference delegates are asked to be divided into groups and create a step by step guide for a specific number of issues chosen by them. The BAP is moderated by two energy storage experts and it's designed to give you actionable information that you can work on as soon as you are back at the office.

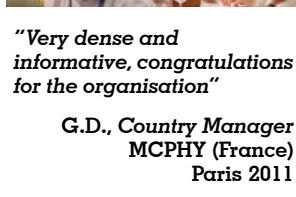
It's the 6th Forum And We Are Specialist On This Topic. Dufresne, the producers of this Forum, focus only on Energy Storage conferences, training and workshops. Our Forums took place in Asia (China, Japan) and in Europe (Spain, France, Italy). Germany is our 6th Forum thus we have a history of providing a successful networking and a learning platform covering all aspects of the value chain.

Network And Discuss With 2400+ Energy Storage Members Worldwide. Discuss with past delegates, speakers and selected professionals from the full value chain. Put forward your questions and get to know your peers before and after the Forum so you can gain more in depth learning and networking value throughout the year. It's free, apply here now: <http://goo.gl/ILRjJ>



"Very useful networking event, interesting speakers and topics"

**T.J., Business Dev Manager
DYNAPOWER (USA)
Rome 2012**



"Very dense and informative, congratulations for the organisation"

**G.D., Country Manager
MCPHY (France)
Paris 2011**



"Excellent technology advice at a well pitched level"

**J.D., Power Systems Engineer
HORIZON POWER (Australia)
Tokyo 2011**



"Great update information from utilities and suppliers"

**P.F.M., Project Manager
ENDESA (SPAIN)
Barcelona 2010**





Sponsorship Packages At A Glance

The Platinum option has premier positioning and priority in each of the features described below. This is not an exhaustive list, please contact one of our marketing consultants to help you define your objectives

Features	Platinum Premier Positioning & Size	Gold	Silver	Associate
ConnectTime (bespoke feature, ask for details)	✓	✓		
Company logo appearing in a 3 minute video animation at start of Forum	✓	✓		
Company logo appearing in Energy Storage Forum marketing video	✓	✓		
One to one video interviews	✓	✓		
Speaking opportunity (subject to content approval)	✓	✓	✓	
Logo on the front page of programme - paper and digital version	✓	✓	✓	
Bi-monthly newsletter logo branding	✓ 24 issues	✓ 12 issues	✓ 8 issues	✓ 4 issues
Electronic ticket corporate branding	✓	✓	✓	✓
Company logo on Energy Storage Forum's customised design stage	✓	✓	✓	✓
Company logo in coffee area and registration backdrop	✓	✓	✓	✓
Company logo on Forum home page with link to company website	✓	✓	✓	✓
Company logo on sponsorship and exhibition page of Forum website	✓	✓	✓	✓

These three main sponsorship options are available amongst other options so do please contact one of our marketing consultants to enquire further. Examples of packages include: • Lunch • Drinks reception • Conference bursary • Cultural entertainment sponsorship

Tailored Packages We believe in tailoring your needs by understanding your strategic objectives. This understanding is then transferred to our database, blog and media partners which will allow you to reach thousands of individuals for a good period stretching over 6 - 12 months.

Exhibition Showcase



Sponsors logos on stage backdrop, registration backdrop and banners



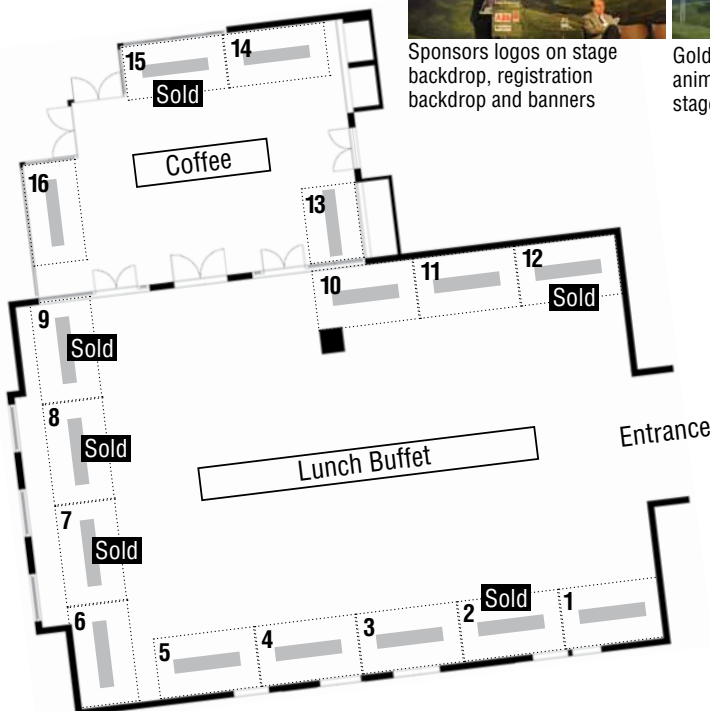
Gold Sponsor video animation shown on main stage at start of conference



Exhibition showcase



Sponsor the drinks reception



Who Will You Meet

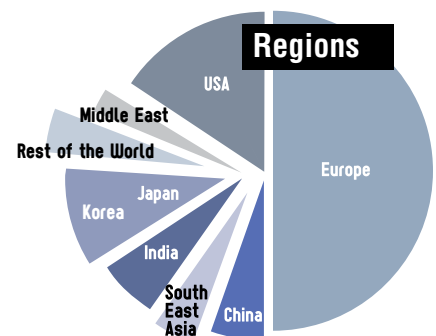
- Utilities, TSOs, DSOs
- Generation
- Transmission & Distribution Providers
- Renewable Energy Intergrators
- Government/Regulators/Public Agencies
- Energy Storage Solutions Providers
- Battery Manufacturers
- Research Institutes
- Investors
- Wind Energy Operators
- PV Manufacturers
- Power Electronics
- Inverters
- Commercial & Industrial End Users
- Energy Trading
- Oil/Gas

From Which Functions

- CEO / Board Members
- CTO
- Head of Public Affairs
- Director of Product Management
- Director of Grid Integration
- Transmission Networks Manager
- Head of R&D
- Energy Storage Business Development
- Technical Development Manager
- Head of Reee Technologies
- Head of Engineering
- Director of Innovation
- Distributed Energy Resources Manager
- Storage Research Leader
- Load Levelling Manager
- Business Development Manager

Sponsorship Exhibition Enquiries:

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Asia: +65 6243 0050 emily@energystorageforum.com



Pre-Forum Workshops Monday 22 April

MORNING WORKSHOP

Energy Storage With Solar

- 8.30 Registration And Coffee
- 9.00 Introducing Your Workshop Leaders
- 9.10 **SESSION 1**
Examining The Business Case For Solar With Energy Storage
- 9.30 **SESSION 2**
Microgrids In Rural Scenarios
- 10.00 **SESSION 3**
Developing PV Integrated Energy Storage Systems Capable Of Voltage And Frequency Support, PV Firming, Real Power Dispatch And Ramp Rate Control
- 10.45 Coffee Break
- 11.20 **SESSION 4**
Choosing The KPIs For Energy Storage Technologies With Solar
- 12.00 **SESSION 5**
Energy Storage With PV Hybrids
- 13.00 Lunch

WORKSHOP LEADERS - Morning Session

**Irene Fastelli***Project Manager, Renewable Energy and Distributed Generation
ENEL (ITALY)* 

Irene Fastelli joined Enel Research Department in 2006. Her activities focused on innovative systems and energy conversion technologies within the national and international energy scenarios. Main research topics dealt with renewable energy power plants, distributed generation, hydrogen production, storage and use, energy storage systems. Currently she leads Enel storage research project, which includes modelling, experimental activities and feasibility analysis on storage systems.

**Raquel Garde Aranguren***Head of Energy Storage, Renewable Energies Grid Integration Dept
CENER (SPAIN)* 

Raquel is responsible of Energy Storage Area, IRE Department - Ph.D. in Inorganic Chemistry. She has 18 years of international experience in the field of chemistry and physics (catalysis, magnetism, solid state, etc). She has developed most of her outstanding research career at the University (Germany and France) and at CENER, where she is responsible for the Energy Storage Group from 2002. She works mainly on Hydrogen and Fuel Cells and Electrochemical Energy Storage Systems as well as energy management with electric vehicles, cold warehouses, etc. Author of numerous scientific publications and conferences, has participated in a large number of national and international projects, expert groups, and committees.

AFTERNOON WORKSHOP

**Energy Storage
ACADEMY**

Establishing The Real Price Of Energy And Its Storage

Why is the price of Coal, Oil and Natural Gas (CONG) derived energy much less than solar PV + battery storage? The answer: the current market price of CONG-based energy is not the true price – reflecting neither the efficiency of conversion from an original therm of solar energy received nor the wider societal and environmental impacts associated with this energy source.

This workshop will examine how fossil fuels and renewable technologies should be assessed and priced according to clear and consistent criteria which integrates not only their utility, but also their sustainability performance. The workshop leaders will focus on developing a universal approach to pricing energy which draws upon fundamental thermodynamic principles. Utilising such an approach will put all energy sources on a level-playing field and therefore affect how energy storage is priced. This workshop will give you the tools to illustrate that alternative energy supply and storage technologies are highly competitive, and in fact favourable, compared with CONG-based energy technologies.

- 14.30 Introducing Your Workshop Leaders
- 14.40 **SESSION 1**
What Is The Right Price For Energy And By Extension Energy Storage?
- 15.00 **SESSION 2**
How Should We Communicate The True Price Of Energy?
– Examining The Long-Term, Negative Impacts Of Our Current Pricing Model
- 15.45 Coffee Break
- 16.10 **SESSION 3**
How Can The Above Be Used For Comparing Various Energy Storage Technologies Including CONG Sources?
- 16.30 **SESSION 4**
DISCUSSION SESSION
In this session we will stimulate and support discussion and collaborative thinking across the above questions, with an aim to generate some agreed areas and also to identify key issue for further exploration and development. This session will consist of a mix of input from the workshop leaders, together with collaborative development to ensure that we use the extensive expertise and experience of the participants.
- 17.15 End of Workshop

WORKSHOP LEADERS - Afternoon Session

**Joss Tantram***Co-Founder and Partner, Corporate Sustainability
TERRAFINITI (UNITED KINGDOM)* 

Joss is a recognised expert in sustainable innovation and thought leadership specialising in the development and dissemination of cutting edge sustainable business practice and the integration of sustainability into company practice. With 15 years' experience in sustainability consultancy, combined with 5 years with WWF, he combines a mix of technical knowledge, passion with a solid track record of innovation in sustainability. Prior to Terrafiniti, Joss was a co-founder of WWF-UK's Business Education Unit. After leaving WWF Terrafiniti (as Terra Consult), he worked throughout Europe and across the world to support clients in understanding and responding to the challenges of sustainability.

**Sean Grunnet Cuthbert***Principal Consultant
GRUNENERGI (DENMARK)* 

Mr. Cuthbert initially studied for his chemical engineering degree with the intention of working in the Canadian Space Agency on space habitat technology. Instead, Mr. Cuthbert has spent the past 20 years designing, optimising, and troubleshooting chemical processes within the oil & gas, pulp & paper, refining, and petrochemicals industries. Recently, Mr. Cuthbert returned to his roots by initiating a research programme in large-scale energy storage technologies, with a focus on the fundamental thermodynamics of such energy systems.



Forum Day 1 Tuesday 23 April

Regulation / Solar / Business Case / Project Results / Battery Technology / Inverters

8.30 Registration And Coffee

9.00 Welcome Address

Davide Bonomi, *Content Strategy Director*
DUFRESNE – ENERGY STORAGE FORUM

9.20 Chairman Introduction

Richard Baxter
President, MUSTANG PRAIRIE & Author Of The Book
"Energy Storage - A Non Technical Guide" (USA)

9.30 **REGULATION** KEYNOTE Energy Storage In Germany: Perspective From The Federal Government

Hans-Joachim Otto
Parliamentary State Secretary
FEDERAL MINISTRY OF ECONOMICS & TECHNOLOGY (GERMANY)

9.55 Examining How To Serve Different Energy Storage Applications At The Same Time And In Which Priority

- Frequency regulation
- Arbitrage
- Secondary regulation
- Decentralisation

Oliver Weinmann
Head of Innovation
VATTENFALL (GERMANY)

10.20 Examining How To Tailor Energy Storage Solutions To Specific Needs

- What is the best system design configuration?
- What type of performance is required and when?
- Developing a data language that describes true performance

Samuele Lupatini
Sales & Marketing Manager
FIAMM (ITALY)

10.45 Coffee Break And Exhibition Visit

11.20 To What Extent Is Energy Storage The Killer App For Solar And How?

- In which scenario lies the ROI for solar operators and system integrators?
- Which battery and storage technology is the best match?
- What are the lessons learnt from the solar industry which can be applied to the storage industry?

Kevin Sara
CEO
NUR ENERGIE (UNITED KINGDOM)

11.45 Evaluating The Results Of 1MW Battery Energy Storage Within The Distribution Grid In Zurich

- What benefits is a real battery energy storage project providing to a distribution grid?
- How can batteries be managed for a longer operational life?
- What operational challenges are faced by operators of such systems?

Michael Koller
Energy Storage Specialist
EKZ (SWITZERLAND)

12.10 Examining The Benefits And Results Of Short-Term Discharge Energy Storage On 11kV Distribution Networks

- How to coordinate energy storage resources
- What communication methods are needed to control installations?
- How do we optimise storage within distribution networks?

Nicholas Heyward
Commercial Manager, Future Networks
UK POWER NETWORKS (UNITED KINGDOM)

Peter Lang
Senior Technology Transfer Engineer
UK POWER NETWORKS (UNITED KINGDOM)

12.35 Identifying The Business Case for Energy Storage In Asia

- Examining Energy Storage total cost of ownership in utility grid applications in Asia
- Examining the results from using batteries in conjunction with PV systems
- When and how will energy storage gain a foothold in Asia?
- What efforts are being made to incentivise Energy Storage in Asia?

Minsoo Bae
Sr. Director / Energy Solution (PV+ESS) Sales
SAMSUNG (SOUTH KOREA)

13.00 Networking Lunch And Exhibition Visit

15.00 Evaluating The Results From Four Deployments And Examining The Storage ROI

- 12 months review from the Isernia storage project
- Examining three storage installation in primary substations
- Evaluating Key Performance Indicators for the next 12 months

Francesco Sessa
Vice President - Network Development
ENEL (ITALY)

15.25 Examining How A Portfolio Of Energy Storage Technologies Will Be Key For Future Networks Embedded Applications

- How has current thinking changed our technology selection?
- What roles can different storage technologies provide in the network?
- What storage projects are being implemented?

Stewart A Reid
Future Networks and Policy,
SCOTTISH AND SOUTHERN ENERGY (UNITED KINGDOM)

15.50 Coffee Break And Exhibition Visit

16.30 Choosing Cost Effective Inverters To Match MW Requirements For Storage, Frequency Regulation, Ancillary Services And Renewables Reliability

- What type of technologies and Management Firmwares are available today?
- What can we expect from an inverter when working with MW requirements?
- How to obtain certification for worldwide markets

PANEL DISCUSSION AND MOBILE POLLING

16.55 OWNERSHIP: Who Should Be The Owner Of Storage? TSO/ DSO vs. Market

- Is storage transmission or generation?
- Who derives the benefits from storage?
- Is storage an item of network infrastructure or a profit making asset?

Regulator's View:

Denis Cagney
Director of Gas, Renewable and Legal
COMMISSION FOR ENERGY REGULATION (IRELAND)

Pierre Dechamps
Adviser to President J.M Barroso
EUROPEAN COMMISSION, (BELGIUM)

Axel Strang
Green Technology Policy Advisor
FRENCH MINISTRY OF ENVIRONMENT AND ENERGY

Jacques Ghery
Chief Advisor - Technical Operation Of The Markets Directorate
COMMISSION DE RÉGULATION DE L'ÉLECTRICITÉ ET DU GAZ (BELGIUM)

Utilities' View:

Klaas Hommes
Project Manager, System Operations
TENNET (THE NETHERLANDS)

Christian Folke
Upstream Generation/New Build & Technology Director
E.ON (GERMANY)

17.55 Closing Remarks From The Chair

18.00 **Networking Drinks Reception**

Speakers and delegates will come together within the exhibition area to discuss the day's topics in a more relaxed atmosphere.

"Very useful networking event, interesting speakers and topics"

T.J., Business Dev Manager
DYNAPOWER (USA)





Forum Day 2 Wednesday 24 April

Microgrid / Market Size / Investment / Emerging Markets / Power Electronics / Benchmarking Technologies

8.30 Registration and Coffee

9.10 Previous Day Summary And Chairman Introduction



Richard Baxter
President, MUSTANG PRAIRIE & Author Of The Book "Energy Storage - A Non Technical Guide" (USA)

9.30 Exploring Innovative Regulatory Frameworks That Will Attract Investments And Develop New Energy Storage Business Models In India

REGULATION

- Getting energy storage technologies included in renewable energy targets and goals set by governments - how could storage be included in national/international targets?
- Exploring ways to give project developers confidence in supporting energy storage projects
- Developing a consistent plan at national level for the installation of storage
- What time scales do we expect for regulation on storage projects in India and in which regions?



Vijay L. Sonavane, Technical Member
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION (INDIA)

9.55 Choosing The Ideal Mix Of Energy Storage Technologies That Will Optimise The Cost To Benefit Ratio For TSOs, DSOs And Producers

- Evaluating cycles vs. benefit/cost by considering expected usage
 - marginal use - medium use - intense use
- Choosing performance parameters
- Identifying the benefit function first in order to maximise ROI and the best technology mix
 - Comparing traditional applications vs. new applications



Goran Strbac, Professor of Electrical Energy Systems,
Chair in Electrical Energy Systems
IMPERIAL COLLEGE OF LONDON (UNITED KINGDOM)

10.20 Examining The Market Size Of Microgrids In African Rural And Urban Scenarios

- Which applications are best for microgrids?
 - hospitals - military - island - communities
- What is the business case for urban vs. rural microgrids in Africa?
- What type of storage devices are found to be most suitable for microgrids?



Sengiphile Simelane
Managing Director
SWAZILAND ELECTRICITY COMPANY (SWAZILAND)

10.45 Coffee Break And Exhibition Visit

11.30 Evaluating Grid Network Design And Positioning Of Energy Storage Systems In Order To Benefit System Operation

- How many energy storage systems should be invested in?
- What capacity and power should the energy storage systems be and where?
- Achieving investment deferral
- Learning the benefits of system operation



Miguel Ordiales Botija
Senior Project Manager
RED ELECTRICA (SPAIN)

11.55 Analysing Stakeholders And Overcoming Challenges When Launching Residential Energy Storage Solutions

- Stakeholders
- Distribution network issues
- Product placement and soft features
- Installation and grid impacts



Erik Hauptmeier, Corporate Research and Development
Technologies - Power Networks and Storage
RWE (GERMANY)

TECH SOAP BOX™

12.20 4 Speakers 10 Minutes Each Focusing On An Innovative Energy Storage Technology

This session is a unique feature of Dufresne's Energy Storage Forum. The Energy Storage Forum Advisory Board selects 4 speakers who will compete by addressing the audience for only 10 minutes. The audience will then evaluate and vote for the best solution. The winner will benefit from our Media Partners' worldwide exposure and a full speaking slot at our next Forum.

To apply and be shortlisted email us: [news\(at\)energystorageforum.com](mailto:news(at)energystorageforum.com)



Apply Now



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13.00 Networking Lunch And Exhibition Visit

15.00 Accurately Quantifying The Amount Of Energy Storage Needed And Determining A Credible Market Size Forecast

- Storage for grid support: where and how to monitor its opportunities? Quantifying market size in:
 - Bulk vs short term vs medium term
- Which storage applications have the strongest business case currently?
 - in which markets and using which technology?
- Forecasting when the currently uneconomical applications will become economical



Shu Sun
Lead Energy Storage Analyst
BLOOMBERG (CHINA)

15.25 Procuring Capital For Future Energy Storage Projects

- How can energy storage projects be made attractive to an investor?
- Developing viable business models and how can these be validated by an investor
- What does a company need to provide in order to gain investments on energy storage?



Björn O. Peters
Head Of Energy & Infrastructure, Closed-End Funds Production,
DWS INVESTMENTS, DEUTSCHE BANK GROUP (GERMANY)

15.50 Coffee Break And Exhibition Visit

16.30 Developing Storage For PV Systems To Provide Ancillary Services To The Grid And Avoiding Power Outage

- Deciding the right balance between PV and storage support
- What is the best system design configuration?
- What communication protocol should be chosen?



YK Sehgal
Head of Smart Grid
POWER GRID CORPORATION (INDIA)

16.55 Evaluating Provision Of Reactive Power And Corresponding Requirements For Inverters

- What are the relevant scenarios for this application?
- What variation of inverter sizes would this imply?
- What are the additional costs involved for this function?
- What are the technical and economic constraints?

PANEL DISCUSSION AND MOBILE POLLING

17.20 Comparing Different Battery Technologies In Different Application Scenarios – Which One Offers Better Return On Investment And When?

- Li-ion
- NaS
- Lead Acid
- Zinc Bromine
- Metal-Air
- Nickel-Cadmium
- Redox Flow
- Supercapacitors
- Sodium Metal Halide

Moderator:



Peter Hall
Professor of Chemical and Biological Engineering
UNIVERSITY OF SHEFFIELD (UNITED KINGDOM)

Panelists:

Four panelists will put forward the business case for their battery technology. The audience will then vote for their preferred battery solution via mobile and the polling results will be discussed by the whole panel.



Apply to be a panellist at: [news\(at\)energystorageforum.com](mailto:news(at)energystorageforum.com)

18.00 End of Forum Day Two

"Very dense and informative, congratulations for the organisation"

G.D., Country Manager
MCPHY (France)





Forum Day 3 Thursday 25 April

Wind / Solar / Standards / Wind-Gas / Residential Storage / Power Electronics

8.30 Registration And Coffee

9.10 Previous Day Summary And Chairman Introduction

9.30 How Can Nigeria Benefit From Energy Storage?

- What is the policy and incentives scenario in Nigeria for renewable energy?
- What is the market size for energy storage solutions in Nigeria?
- Which applications can be most suited for Energy Storage in Nigeria?

REGULATION



Abubakar Sani Sambo
Director General/CEO

ENERGY COMMISSION OF NIGERIA (NIGERIA)

9.55 Energy Management And Standardised Field Bus Communication For Optimized Hybrid PV Battery Systems

- Optimized integration of system components:
 - power electronics (inverters, charge controllers) - different battery technologies
 - different generators - loads
- How can special needs be addressed?
 - CiA 454 specification - operating control strategies
 - integration of hybrid battery systems with integrated battery management



Matthias Vetter
Head of Dept, PV Off-Grid Solutions & Battery System Technology
FRAUNHÖFER ISE (GERMANY)

10.20 Energy Storage Vs. More Power Lines And More Flexible System Components

- Is storage providing better or equal performance?
- Evaluating regional scenarios
- Examining demand side management and flexible conventional generators



Bernd Calaminus
Head of Generation Technology Conventional
ENBW (GERMANY)

10.45 Coffee Break And Exhibition Visit

11.30 Integrating High Levels Of Wind Penetration – Ireland Scenarios

- Understanding the best application scenario for wind and energy storage
- Examining lifecycle benefits and ROI
- Wind scenarios with energy storage in Ireland
- What type of Energy Storage might be needed?



Denis O'Leary
Head of Smart Energy Technologies
ESB NETWORKS (IRELAND)

ESB Networks is the licensed operator of the electricity distribution system in the Republic of Ireland. ESB Networks works very closely with EirGrid, the TSO

11.55 Increasing Local PV Power Through Deployment Of A Compact Battery Storage Unit

- Implementing storage within the grid
- Discussing the effects of storage within a wider area
- Demonstrating the case study



Robert de Groot
Innovation Researcher
ENEXIS (THE NETHERLANDS)

12.20 Wind To Gas Results: Suderburg Wind Farm With Electrolyzer Facility

- What is the round cycle efficiency of this type of storage solution?
- Hourly/daily load management vs seasonal / long term storage
- How to promote this technology and investment from the consumers



Marcel Keiffenheim
Director for Energy Policy
GREENPEACE ENERGY (GERMANY)

Greenpeace Energy is an energy reseller. It provides electricity that meets the high standards of the "Grünstromlabel" (Green Electricity Label) which means that the electricity has to come from new renewable energy

12.45 Using Power Electronics To Achieve A Smooth Transition Between On Grid - Off Grid And Avoiding Outage

- To what extent can the current power electronics switch between the two modes?
- What kind of outage is considered acceptable and in which scenarios
- What type of power electronics/inverters are best suited?

13.10 Networking Lunch And Exhibition Visit

14.30 Introducing Renewables And Maintaining Power Quality In Short Term Applications

- Choosing a technology that can fulfill short term technical requirements
 - voltage stability - frequency stability
- Comparing Flywheel vs. Super capacitors vs. Li-ion
- What time period should be made available?
 - up to 15 mins vs. Seconds
- Mitigating the downturn of spinning reserves



Jan Kostevc
Head Of Operational Support
ELEKTRO-SLOVENIJA (SLOVENIA)

14.55 Examining Partnerships Between Solar And Energy Storage Providers: Who Will Invest And Own The Residential Energy Storage System?

- How will the cost be recouped? What is the most expensive part of the system?
- Who has the relationship with the customer?
- What type of marketing can be done together?
- To what extent will regulators allow or incentivise residential energy storage with a feed in tariff and reduce cost of the system?



Tobias Schütt
Founder
DZ – 4 MODERNE ENERGIE (GERMANY)

15.20 To What Extent Is Wind-Gas A Viable Alternative To "Conventional" Storage?

- What are the economic advantages/disadvantages?
- What are the technological issues that need to be resolved to make this approach competitive?
- What is the issue regarding GHG accounting once blending fossil with "renewable" gas?



Anders Bavnhøj Hansen
Chief - Strategic Planning
ENERGINET (DENMARK)

15.45 Coffee Break And Exhibition Visit

16.30 Maintaining Microgrid Stability And Power Quality During Autonomous Operation - Evaluating Results From The Latest Project

- What type of storage devices are found to be most suitable for microgrids?
- What are the best control configurations?
 - connected mode vs. isolated mode
- Examining how to manage in real time the energy of the microgrid

PANEL DISCUSSION AND MOBILE POLLING

16.55 To What Extent Can Partnerships Between Batteries And Smart Inverters Reduce The Cost Of Energy Storage?

Panelists:



Four panelists from the power electronics/inverters/battery sector will put forward their own solutions and point of view. The audience will then vote with their opinion via mobile and the polling results will be discussed by the whole panel.

Apply to be a panellist at: [news\(at\)energystorageforum.com](mailto:news(at)energystorageforum.com)

17.55 Closing Remarks From The Chair

18.00 End Of Forum Day Three

"Excellent selection of speakers and topics"

P.C.
Leader, Storage for
Renewable
CSIRO (AUSTRALIA)



Post-Forum Workshops Friday 26 April

MORNING WORKSHOP

**Energy Storage
ACADEMY**

How To Make Your Energy Storage Project Financeable

- 8.30 Registration And Coffee
- 9.00 Introducing Your Workshop Leaders
- 9.10 **SESSION 1**
What Does A Company Need To Provide In Order To Gain Investments On Energy Storage?
- 9.50 **SESSION 2**
Examining Methodologies For Finance Structures In The Current Renewable Energy Markets
- 10.45 Coffee Break
- 11.15 **SESSION 3**
Learning From The Solar Industry
- 12.00 **SESSION 4**
Rescuing Troubled Projects And How To Restructure Them
- 13.00 End Of Workshop And Lunch

WORKSHOP LEADER - Morning Session

**Olivier Vallée***CFA, Partner***NATUREO FINANCE (FRANCE) **

Olivier Vallée CFA follows the energy storage space for Natureo Finance, a cleantech investment bank located in Paris. Raised in Silicon Valley and fluent in French and English, he holds a Physics degree from the University of California and an MBA from Ecole Nationale des Ponts et Chaussées in Paris and is a Chartered Financial Analyst. Prior to joining Natureo Finance in 2010, Olivier held positions in investment banking and asset management, including sell-side analyst for technology boutique Hambrecht & Quist (now JP Morgan), hedge fund advisor for Park Place technology fund, head of research for Dynamic Decisions, head of investment technology for Sogeposte (now Banque Postale Asset Management), manager of projects at the European Program in Advanced Continuing Education and head of computing for the Western Behavioral Sciences Institute.

AFTERNOON WORKSHOP

Building The Action Plan™ (BAP)

Start: 14.30

Coffee Break: 15.45

End: 17.30

Our Forums culminate with a session where conference delegates are asked to "Build An Action Plan" (BAP), with a step by step guide for a specific number of issues chosen by the participants from the previous 3 days. The "BAP" is moderated by 2 experts from the energy storage industry who will guide you and help you with new ideas.

This half day workshop is an integral part of the whole Forum taking it to the next level. It's been exclusively designed by Dufresne Research for the Energy Storage Forum series with the aim to give you actionable information that you can work on when you are back at your office.

How?

1 Every 3 power point presentations taking place during the 3 days Forum, the delegates will be given time to note down the three main points that he / she would like to discuss with more depth after having heard the presentations. In addition to that each delegate can suggest a topic when he/she registers to the conference via the website.

2 Delegates attending the BAP will then be presented with a list of topics to choose from and will be split into groups according to their favourite topic. Each group will come up with a detailed action plan for their chosen challenge.

3 Each group leader will present to the whole audience their group solution with a step by step action plan.

BAP Leaders:

**Rahul Walawalkar***Vice President, Emerging Technologies & Markets***CUSTOMIZED ENERGY SOLUTIONS (INDIA) ***Executive Director***INDIA ENERGY STORAGE ALLIANCE (IESA)****Richard Baxter***President, MUSTANG PRAIRIE & Author Of The Book "Energy Storage - A Non Technical Guide" (USA) *

Action Plan Topics Included So Far:



- How can we develop standards for the energy storage industry?
- How do we develop business cases for market based energy storage?
- How do we clearly quantify and communicate the benefits of energy storage systems to end users?
- How do we learn to operate and optimise storage installations?
- How can we ensure that energy storage users can provide an accurate configuration according to their needs?



Register Now

Sponsorship & Exhibition: emily@energystorageforum.com
Enquiry: emily@energystorageforum.com
Speaking at Future Events: gladys@energystorageforum.com

3 EASY WAYS TO REGISTER

 Online: www.energystorageforum.com
 Email: emily@energystorageforum.com
 Call: +65 6243 0050 (Singapore +8GMT)
 +44 208 432 0886 (London)

Monday 22 April | Pre-Forum Workshops
 Tuesday 23 April | Forum Day 1 (Includes Networking Drinks)
 Wednesday 24 April | Forum Day 2
 Thursday 25 April | Forum Day 3
 Friday 26 April | Post-Forum Workshops

Produced by

 (doo-frayn)

Select Your Forum Days		Book BY 21 Jan '13	SAVE	Book BY 18 Feb '13	SAVE	Book BY 18 Mar '13	SAVE	Book AFTER 18 Mar '13
5 Days	All 3 Forum Days + 2 Workshop Days (22+23+24+25+26 April)	2690 €	700	2790 €	600	2890 €	500	2990 €
4 Days	All 3 Forum Days + Any 1 Workshop Day (23+24+25+22/26 April)	2290 €	700	2390 €	600	2490 €	500	2590 €
3 Days	All 3 Forum Days (23+24+25 April)	1890 €	700	1990 €	600	2090 €	500	2190 €
3 Days	2 Forum Days + Any 1 Workshop Day (23+24+22/26 April)	1790 €	700	1890 €	600	1990 €	500	2090 €
2 Days	2 Forum Days (23+24 April)	1390 €	300	1490 €	200	1590 €	100	1690 €
1 Day	Pre-Forum Workshops Only (22 April)	690 €	200	690 €	200	790 €	100	890 €
1 Day	Post-Forum Workshops Only (26 April)	690 €	200	690 €	200	790 €	100	890 €

15% Discount for Government Representatives and Academics. (Subject to approval, identification required)
Associations and Partners Discounts Special discounts have been arranged with associations and partners. If a discount code is given to you, please enter it online or contact us at +44 208 432 0886. Discounts cannot be combined. All discounts are subject to approval. Identification stating company name will be required.

REGISTER ONLINE: www.energystorageforum.com/register-now/

Delegates are responsible for the arrangement and payment of their own travel and accommodation. The Energy Storage Forum has arranged a special room rate at the Hotel where the conference will take place.

FORUM VENUE

Kempinski Hotel Bristol Berlin

Kurfürstendamm 27
 10719 Berlin
 +49 (0)30 8843 40
<http://www.kempinskiberlin.de>



This 5-star hotel on Berlin's Kurfürstendamm shopping street offers elegant rooms, an indoor pool and great public transport links. It is 600 metres from the Gedächtniskirche Church and Berlin Zoo. Uhlandstraße Underground Station is just outside the Kempinski's front door. The KaDeWe shopping mall is 2 stops away.

TERMS & CONDITIONS

PAYMENT INFORMATION

The easiest way to pay is online at www.energystorageforum.com/register-now/ and an invoice will be sent to you automatically once the payment has gone through. We may allow payments via telegraphic transfer. Please first email emily@energystorageforum.com

Payment by telegraphic transfer must be made to:
 Oversea Chinese Banking Corporation Ltd
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 Account Name: Dufresne Private Ltd
 Account No: 581807948001
 Swift Code: OCBCSGSG

All transfer charges will be paid by the attendee. Attendance will only be permitted upon receipt of full payment. An invoice with the participant's details will be issued electronically after the payment has been made. Please treat the invoice as the ticket to entry. No VAT (IVA) will be charged to the prices listed.

Dufresne Private Ltd holds the right to entry, identification required.

CANCELLATION/SUBSTITUTION

Should you be unable to attend, a substitute from the same company is always welcomed at no extra charge. Alternatively we can make a refund less a service charge of 10% of the fee for cancellation received in writing (email or fax) no later than 10 March 2013. Where notice is given between 11 and 15 March, refunds will be of 30% of the fee. Regrettably no refunds can be made for cancellations received after 15 March 2013.

IMPORTANT NOTE

The Energy Storage Forum (Dufresne Private Ltd) believes in content and conference quality. Due to unforeseen circumstances the programme may change and the Energy Storage Forum reserves the right to cancel or alter the content and timing of the programme or the identity of the speakers for reasons beyond its control and will not be held accountable for any costs incurred by the participants.

DATA PROTECTION

The personal information shown on this form, and/or provided by you, will be held on a database. Occasionally your details may be obtained from, or made available to, external companies who wish to communicate with you offers related to your business activities. If you do not wish to receive these offers, please email emily@energystorageforum.com or call +65 6243 0050 / +44 208 432 0886.

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