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6 Countries'
Regulators

The 8th

Energy Storage *World* Forum



Rome 27 - 30 April 2015

Parco Dei Principi Grand Hotel (5 Star)

Shaping the "Energy Of Things"

*Creating New Business Models By Examining The ROI Of
Self-Consumption, Off-Grid & Large Scale Energy Storage*

The 2nd

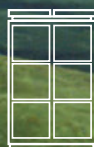
Residential Energy Storage Forum

Monday 27th April 2015

Masterclass

Microgrid Forum

Monday 27th April 2015



**New
2015**

★ **50+ New Topics Across Generation
Transmission and Distribution**

★ **Grid Defection Business Models**

★ **95% New Speakers From
End Users With New Results**

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Programme At A Glance

Monday 27th April	Tuesday 28th April Forum Day 1	Wednesday 29th April Forum Day 2	Thursday 30th April Forum Day 3
<p>Residential Energy Storage Forum</p> <p>Presentations From DSOs/Utilities including:</p> <p>E.ON, EVN, TRIANEL, ENEXIS, STEDIN, MALARENERGI GRID, ERDF, STATKRAFT</p> <p>Regulators and Government Officials Such As:</p> <p>STATE OF HAWAII, ESTONIAN COMPETITION AUTHORITY, GERMAN FEDERAL ENVIRONMENT AGENCY, CALIFORNIA PUBLIC UTILITIES COMMISSION (USA), AUTHORITY FOR CONSUMERS & MARKETS - ACM (NETHERLANDS)</p>	<p>Presentations From Utilities/TSOs/EPCs including:</p> <p>ENEL, ENBW, VERBUND, EKZ, IBERDROLA, RTE, TENNET, SWISSGRID</p> <p>Regulators and Government Officials Such As:</p> <p>EUROPEAN COMMISSION, SWEDISH ENERGY MARKETS INSPECTORATE</p>	<p>Presentations From Utilities/TSOs/EPCs including:</p> <p>TERNA, SUNZIL, ENEL, VATTENFALL, ESB, GRDF, LANDSNET, AUSTRIAN POWER GRID, GRDF</p> <p>Regulators and Government Officials Such As:</p> <p>STATE OF HAWAII, SINTEF, EPRI, RSE,</p>	<p>Utilities Breakfast Session</p> <p>Presentations From Utilities/TSOs/EPCs including:</p> <p>ALINEASOLAR ELIA TELECOM ITALIA EDP VORALBERGER VERBUND FRES REPSOL ELES EDF</p>
<p>Microgrid Masterclass</p> <p>Full Day In Parallel</p> <p>Masterclass Leaders Include</p> <p>ADVANCING ENGINEERING (INDONESIA), SUNLABOB (LAOS), FOUNDATION RURAL ENERGY SERVICES (AFRICA), OMNIGRID MICROPOWER (INDIA)</p>	<p>Drinks Reception</p>	<p>Building The Action Plan</p> <p>Drinks Reception</p>	<p>Champagne Roundtable</p>

Exhibitors To Date



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Dufresne (doo - frayn) Research specialises in creating high quality market driven conferences and training. The company focuses on stationary Energy Storage across all applications from Residential, Self - Consumption and Microgrid through to large scale stationary storage. Our new conference formats such as the Building The Action Plan, the Tech Soap Box and our group on LinkedIn with over 6000 selected professionals have created a platform which facilitates a genuine learning and business exchange within the energy storage community worldwide. Over 2000 delegates and 40+ sponsors attended our events in total so far. For more information please visit: www.energystorageforum.com and www.microgridforum.com



WATCH OUR EVENT VIDEO!

<http://www.youtube.com/user/EnergyStorageForum>



on **LinkedIn**
<http://goo.gl/ILRjJ>

Put forward your questions and get to know your peers before and after the conference so you can gain more learning and networking value

“Interesting insights in the applications of storage.”

A.P., Researcher, EDISON (ITALY)
 ESWF Berlin 2013

“Interesting especially the real examples of installations done.”

EMEA Sales Director
 FIAMM (ITALY)
 ESWF Berlin 2013

“Good level of speeches and good level of intellectual stimulation”

Head of Strategy, GDF SUEZ (FRANCE)
 ESWF London 2014

“Speakers are well prepared and good deliverables”

Snr Deputy Director, EMA (SINGAPORE)
 ESWF London 2014



Pre- Forum Masterclass Monday 27th April 2015

Developing A Microgrid Business And Technical Plan



8.30 Registration and Coffee

13.00 Networking Lunch

9.00 Introducing Your Masterclass Leader

17.30 End of Masterclass



This workshop on Microgrids has been specifically designed to help you solve the challenges and opportunities in countries such as South East Asia and Africa. Participants will be able to learn from the failures as much as from the best practices directly from professionals based in the region.

ABOUT YOUR WORKSHOP LEADER:



Andre Susanto
Vice President
ADVANCING ENGINEERING (INDONESIA)

Based in Indonesia, Andre Susanto manages the renewable energy division of Advancing Engineering. He has a vast hands on experience on deploying Microgrids and energy efficiency projects with international NGOs, large Indonesian and international companies, as well as residential clients. His technical and business savvy has carried him and his company to be one of the three winners of World Bank's Indonesia Green Entrepreneurship Subprogram.

SESSION 1

Examining The Business Case For Microgrids Worldwide And Achieving Economies Of Scale

- Laos
- Myanmar
- India
- Indonesia
- Philippines
- Africa

SESSION 2

How To Achieve Effective And Remote Maintenance Of Micro Grids Of Scale

SESSION 3

Deciding The Best Location For Rural Microgrids By Evaluating Real Life Projects

SESSION 4

Comparing Different Energy Storage Technologies For Microgrids In Different Geographical Scenarios

SESSION 5

Evaluating Redox Flow Batteries For Balancing Urban Microgrids And Virtual Power Plants



Spyros Skarvelis-Kazakos
Sustainable Electrical Power Engineering
UNIVERSITY OF GREENWICH (UK)

SESSION 6

How To Design Protection Schemes For The Microgrid And Achieving Safety

SESSION 7

How To Raise Funds For Microgrids – Practical Experiences From Asia



Andy Schroeter
CEO
SUNLABOB (LAOS)

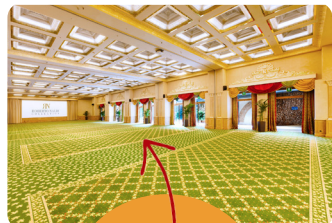


Caroline Nijland
Business Development Director
FOUNDATION RURAL ENERGY SERVICES (AFRICA)



Anil Raj
CEO
OMNIGRID MICROPOWER (INDIA)

Exhibition Showcase



Only 20 Sponsors Will Exhibit Here At The Five Star Parco Dei Principi - Rome

Whilst networking in the Exhibition area during our coffee and lunch breaks, enjoy the view over the gardens with natural light within an exclusive setting, making this Forum a unique business experience from the usual overcrowded exhibitions and offering you the opportunity to create a more memorable business conversation with only relevant potential partners.

The Parco dei Principi Grand Hotel & Spa is the ideal setting for special events and has 18 meeting rooms. The Congress Centre has natural light and its own entrance. This year's Hotel choice is in a privileged location in the exclusive Parioli district, next to the Villa Borghese park and surrounded by a stunning botanical garden: a true oasis in the heart of Rome.



Selected Exhibition Space



Exclusive Networking Opportunities



Drinks Reception Within The Exhibition Area

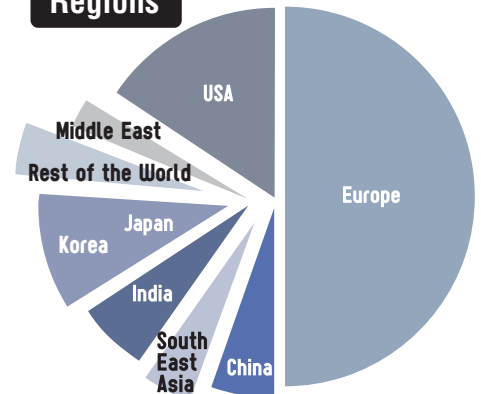
Who Will You Meet

- Utilities, TSOs, DSOs, DNOs
- Generation
- Government/Regulators/Public Agencies
- Energy Storage Solutions Providers
- Battery Manufacturers
- Research Institutes
- Investors
- Wind & Solar Operators
- PV Manufacturers
- Power Electronics
- Commercial & Industrial End Users
- NGOs
- Property Developers
- EPCs
- System Integrators
- Distributors and Installers
- Energy Trading
- Oil/Gas
- ESCOs

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 Rease Technologies
- Head of Engineering
- Director of Innovation
- Distributed Energy Resources Manager
- Storage Research Leader
- Load Levelling Manager
- Business Development Manager
- Lead Energy Storage Specialist
- Head of Power Projects
- Contracting and Energy Solutions Manager

Regions



Sponsorship & Exhibition Enquiries

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FOCUS
DAY

The 2nd Residential Energy Storage Forum

Monday 27th April 2015

Developing New Business Models By Leveraging The "Energy Of Things" & Prosumers

Book Just This
One Day or
SAVE 990 Euros
When Booked
As A Package

8.30 Registration & Coffee

9.10 Chairman Introduction

9.30 Who Will Own And Manage The New Business Models Derived From Residential Energy Storage?

- What is the potential of these services?
 - distribution services such as wholesale - leasing business model
 - after sales specialist services
- Selling directly vs. installer vs. third party ownership
- Who will come up with the right business model and manage the residential storage?
 - storage-only companies vs. installers vs. utilities vs. solar manufacturers



Michael Fipper
Vice President T&I Strategy and Head of Innovation Center System
E.ON (GERMANY)

9.55 Quantifying the Market Potential And Evaluating The Business Case For Commercial And Residential Prosumers

- Identifying the typical customer of residential energy storage systems and the drivers for purchasing the system
- What is the expected cost of residential energy storage applications?
- Examining the quantitative analysis of different classes of commercial customers
 - large office site / data centre - hotels / supermarkets



Andrea Edelmann
Head of Innovation
EVN (AUSTRIA)

10.20 Evaluating The Residential Energy Storage Business Case For Stadtwerke And Municipal Utilities

- Examining when and how to apply decentralised distribution grids with storage
- Exploring new business models in order to make storage systems more affordable
- Lessons learnt from Stadtwerke in Germany



Sven Becker
Managing Director
TRIANEL (GERMANY)

10.45 Coffee Break & Exhibition Visit

11.30 Examining ROI Of Storage By Examining Three Years Results From Residential PV Application With Li-Ion Batteries

- Power Flows
- How financially viable was the storage system? What should the cost per kWh be?
- What were the operational and logistical challenges?



Robert De Groot
Head of Project
ENEXIS (NETHERLANDS)

11.55 How To Engage Prosumers In Managing Self-Consumption And Avoiding Costly Grid Upgrades And Investments

- What price incentives can be used?
- How to reduce power exports?
- Avoiding grid congestion



Lisette Kaupmann
Innovator
STEDIN (NETHERLANDS)

12.20 TECH SOAP BOX

4 Speakers 10 Minutes Each Focusing On A Innovative Key Technology. This session is a unique feature of Dufresne's Energy Storage World Forum. 4 innovative companies will present a new technology for 10 minutes. The audience will then evaluate each presentation and vote for the best technology solution.



Andrew Tanner
Vice President, Business Development
GROWING ENERGY LABS (UNITED STATES)



Apply now



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13.00 Lunch

14.30 Forecasting Net Loads Fluctuations In The Transmission And Distribution System In Order To Ensure Effective Capacity With Self Consumption

- How have distributed solar PV risen in different countries?
- EV adoption forecast
- Forecasting fluctuations in the transmission and distribution system



Lars Ohlsson
Former CEO of Falbygden Energi and Advisor To The CEO of
MALARENERGI GRID COMPANY (SWEDEN)

14.55 To Diesel Or Not To Diesel? The Business Case For Self-Consumption Without Diesel

- How much diesel is needed for hybrid systems vs. a small battery?
- What are the economics in 20 years, 10 years and 5 years and how do the economics influence the system design?
- Examining the trade-off between storage size and remaining diesel consumption in geographical islands



Ibrahim Nashid
Chairman
RENEWABLE ENERGY MALDIVES (MALDIVES)

15.20



Apply as a speaker now: emily@energystorageforum.com

15.45 Coffee Break

16.30 Evaluating The Results From A Self Consumption Case Study Within A Commercial District

- Examining the installation, commissioning and operation of a large scale battery on the distribution grid
- How is demand response being managed?
- How are peak loads being eliminated?



Thomas Drizard
Project Engineer
ERDF (FRANCE)

16.55 How To Adapt Prosumer Systems With PV Batteries To The Need Of The Distribution Grids

- Choosing new management mechanisms of transmission grids
- Location pricing and price signals
- Achieving real time visibility into grid operations



Matthias Vetter
Head of Department - PV Off-Grid Solutions and Battery System Technology
FRAUNHOFER (GERMANY)

PANEL SESSION – GRID DEFECTION

17.20 Evaluating Taxation and Pricing Systems For Distributed Generation Based On Self-Consumption And Prosumers

- How to allocate network service and transport costs in a distributed generation scenario?
- What obstacles do we need to overcome for residential energy storage potential taxation
 - to tax or not to tax? To what extent is this taxation fair?
- What is the fairest way to tax for the service whilst still helping the self-consumption market?
- SEU proposal from Italy (Sistemi Efficienti Di Utenza): advantages and disadvantages taking into consideration prosumers and consumers
- RIIO-ED1 from UK for electricity distribution price control
- SGIP California Public Utility Commission's Self-Generation Incentive Program



Lorraine H. Akiba
Commissioner
STATE OF HAWAII PUBLIC UTILITIES COMMISSION (USA)



Märt Ots
Director General
KONKURENTSIAMET - ESTONIAN COMPETITION AUTHORITY (ESTONIA)



Harry Lehmann
Head of Division, Environmental Planning and Sustainability Strategies
FEDERAL ENVIRONMENT AGENCY (GERMANY)



James Loewen
Senior Analyst
CALIFORNIA PUBLIC UTILITIES COMMISSION (USA)



Lars Ohlsson
Former CEO of FALBYGDENS ENERGI and Advisor To The CEO Of
MALARENERGI GRID COMPANY (SWEDEN)



Lillian Dale
Project Manager
STATKRAFT (GERMANY)





18.00 End Of Residential Energy Storage Forum



Forum Day 1

Tuesday 28th April

- 8.30** Registration & Coffee
- 9.00** Welcome Address
Davide Bonomi, *Content Strategy Director*
DUFRESNE – ENERGY STORAGE WORLD FORUM
- 9.20** Chairman Introduction
- 9.30** **Evaluating Methods For Coupling Renewable Power Plants With Storage To Enhance Energy Management Performance**
- Examining ways of using storage for avoiding balancing costs
 - Evaluating the latest results from recent deployments
 - How much storage is going to be needed in Italy and in what time scales?
-  **Carlo Papa**
Chief Innovation Officer
ENEL (ITALY) 
- 9.55** **How Can A Solar Developer Make More Profit By Adding Storage To Their Site?**
- What are the conditions necessary?
 - What are the responsibilities between the developer vs. grid operator?
 - Determining how and who will finance energy storage with solar
-  **Tim Derrick**
General Manager, Advanced Solutions
SUNEDISON (UNITED STATES) 
- 10.20** **To What Extent Is A Differentiation Between Seasonal Storage, Short Term Storage And Intra-Day Storage Needed?**
- Understanding the different opportunities and challenges facing storage solutions in these very different timescales
 - Natural gas storage solutions are already clearly differentiated technologically and economically to serve these different markets – will this be needed for the power sector?
-  **Wolfram Munch**
Head of Research and Innovation
EnBW (GERMANY) 
- 10.45** **How Can Energy Storage Be Competitive With Other Non Storage Options?**
- Calculating the costs of an entire storage system – subsystem components – installation and integration
 - Are we making the right comparison between energy storage and alternatives?
 - Quantifying the value of storage within different grid services – grid extension systems – existing variable production capacities
-  **Gerd Schauer**
Senior Technology Manager-Innovation and Research Department
VERBUND (AUSTRIA) 
- 11.10** Coffee Break & Exhibition Visit
- 11.50** **Lowering Balance Of System Costs And Enabling Faster Adoption Of Energy Storage**
- Evaluating permitting, interconnection, inverter, installation labour, safety testing
 - Examining stakeholders and overcoming the challenges for collaboration
 - Drawing analogies between energy storage and the history of solar costs
-  **Apply as a speaker now: emily@energystorageforum.com**
- 12.15** **Evaluating The Business Case for Large Scale Battery Energy Storage System In The Primary Frequency Control Market**
- Examining CapEx and OpEx
 - Market Risk
 - Evaluating ROI
-  **Michael Koller**
Energy Storage Specialist
EKZ (SWITZERLAND) 
- 12.40** **How To Acquire More Demand Response, Solar And Storage By Turning DSOs Into Independent Distribution System Operators (IDSO)**
- Making the system more transactive
 - How to open up the grid to third party competition
 - Shedding costs and managing a complex future network
-  **James Tong**
Vice President of Government Affairs
CLEAN POWER FINANCE(UNITED STATES) 
- 13.05** Lunch and Exhibition Visit
- 14.30** **Creating A Common Framework To Evaluate The Whole Energy Storage System Performance - IEC TC120**
- Defining unit parameters to be tested, testing methods, planning, installation and safety
 - Which energy storage components must be taken into consideration?
 - Standardisation of interfaces between batteries and inverters and how this can reduce the cost of the whole system - how can this ensure the safety?
-  **Christian Noce**
Working Group 1 Convenor IEC TC120 & Senior Engineer - System Manager, Network Technologies Sector
ENEL (ITALY) 

- 14.55** **Identifying The Best Ways Of Anchoring With Local Industries And Creating A Stable Business Model For Rural Microgrids**
- Which are the most suitable industry partners in remote areas in Asia? – mining – agricultural – telecoms – gas stations
 - How can the upfront investment, cost saving and revenue be shared?
 - Evaluating storage technologies and future energy needs for Microgrids
-  **Anil Raj**
CEO
OMNIGRID MICROPOWER (INDIA) 
- 15.20** Coffee Break and Exhibition Visit
- 16.00** **Evaluating The Benefits Of Local Energy Storage In Wind Farms From A Portfolio Management Perspective**
- How to use wind energy to increase revenue flow and provide new ancillary services with energy storage
 - What sizing criteria should be followed to design the energy storage system?
 - What energy storage technologies could be technically deployed and which ones are most economically viable?
-  **Roberto Veguillas**
Head of Technology Innovation - Renewables Business Unit
IBERDROLA (SPAIN) 

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PANEL DISCUSSION AND MOBILE POLLING

- 16.50** **Who Should Invest In Storage? Deciding Three Solutions To The Ongoing Ownership Debate**
- To what extent should storage be owned by DSOs vs. TSOs and under which conditions?
 - Examining different business models in Europe: regulation vs. deregulation
 - Competition: deregulated entities within one member state vs. deregulated actors in different Member States
- MODERATOR:**
-  **Rudolf Baumann**
Regional Group Leader in Europe, ENTSO-E, International Senior Expert Strategy
SWISSGRID (SWITZERLAND) 
- PANELISTS:**
-  **Andreea Strachinescu**
Head of Unit C2 - New Energy Technologies, Innovation and Clean Coal
EUROPEAN COMMISSION
-  **Marielle Liikanen**
Senior Advisor
SWEDISH ENERGY MARKETS INSPECTORATE (SWEDEN) 
-  **Alessandro Fiocco**
CEO
TERNA PLUS / TERNA STORAGE (ITALY) 
-  **Michele Governatori**
Head Of Public & Regulatory Affairs
AXPO (ITALY) 
-  **Thomas Veyfren**
Director Markets Department
RTE (FRANCE) 
-  **Oscar Tessensohn**
Team Manager Markets
TENNET (NETHERLANDS) 
-  **Friso Koel**
Head of Unit Regional Networks
AUTHORITY FOR CONSUMER AND MARKETS (NETHERLANDS) 

17.55 Closing Remarks From The Chair

NETWORKING DRINKS RECEPTION

18.00 Speakers and Delegates will come together within the exhibition area to discuss the day's topic in a more relaxed atmosphere within an exclusive setting at the 5 Star Parco Dei Principi Grand Hotel.



Forum Day 2 Wednesday 29th April

8.30 Registration & Coffee

9.10 Previous Day Summary And Chairman Introduction

9.30 **Evaluating The Latest Results From Energy Storage Projects With Solar**

- What type of storage devices are found to be most suitable for and why?
- What installation procedures seem to give better ROI?
- How can solar project developers and EPCs benefit from energy storage?



Bertrand Lavirotte
Technical and Development Manager
SUNZIL (FRANCE)

9.55 **Examining The Italian Regulatory Framework For Storage**

- How different is the Italian energy scenario compared to the rest of Europe?
- What can be learnt from the latest energy storage deployments?
- Overcoming market challenges



Andrea Galliani
Head, Renewable Energy, Energy Production & Environmental Impact Unit
AUTHORITA PER L'ENERGIA ELETTRICA E IL GAS - AEEG (ITALY)

10.20 **Overcoming The Challenges Of Planning And Designing A Modular Large-Scale 5-Megawatt Battery Storage System And Offering Balancing Services**

- Overcoming space and safety limitations
- Evaluating the results from
 - Integration of renewable energy sources
 - testing of a decentralized supply
- How can large-scale battery inverters be used in the utility grid of the future?



Matthias Leuthold
Chief Engineer
RWTH AACHEN UNIVERSITY (GERMANY)

10.45 **How To Create A Combination Of Services With Energy Storage And Achieve Cost Effectiveness**

- Examining three different regions and system architectures
- To what extent can multiple services be combined and achieve economic viability?
 - faster ramping flexibility
 - primary frequency control
 - secondary frequency control
- Evaluating the portfolio effect compared to the sum of the values of the units marketed alone



Anna Carolina Tortora
Head of Innovation and Development
TERNA STORAGE (ITALY)

11.30 Coffee Break & Exhibition Visit

11.55 **Standardising Testing Methods Of Batteries In Order To Evaluate Their True Life And Achieving Long Term Reliability**

- Reaching an agreement on the KPIs such as: Performance, Lifetime, Safety, Cell testing
- How to accurately predict battery life cycle in real life applications by using standard laboratory tests?
- Comparison of existing standards and identifying the gaps
- To what extent is accelerated testing reliable?



Irene Fastelli
Energy Storage Research Project Manager
ENEL (ITALY)

12.20 **Developing Microgrid Projects In Asia And How To Establish Partnerships With Funding Organisations**

- Determining the landscape and future growth of Microgrids in Asia
- How to raise funds with the United Nations and the Asian Development Bank
- Evaluating the results of different storage technologies from 3 different Asian deployments



Andy Schroeter
CEO
SUNLABOB (LAOS)

12.45 **How To Start An Open Market For Second Life Batteries In Order To Lower The Costs Of Energy Storage Systems**

- At what stage in the lifecycle can batteries be reused?
- What is the remaining capacity, value and lifetime of a reused battery?
- Results from different pilot applications



Oliver Weinmann
Managing Director
VATTENFALL (GERMANY)

13.10 Lunch and Exhibition Visit

14.30 **Examining Absorption Capabilities Of Grids Via Storage In Order To Achieve Grid Stability With A Higher Share Of Renewables**

- How to incentivise speed and accuracy of the storage system's reaction and creating more value into the system
- Reducing variable costs



James Tedd
Project Manager - Emerging Energy Technologies
ESB (REPUBLIC OF IRELAND)

14.55 **Operating And Maintaining Optimal Performance Of Energy Storage Installations**

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



Magni Thor Palsson
System Analyst
LANDSNET (ICELAND)

15.20 **Current State Of Play And Business Case Of Power-To-Gas In Europe**

- Synergies between RES electricity production and gas storage
- Identifying technical and commercial challenges
- To what extent is Power To Gas a viable option?



Manfred Pils
Director Market And Regulation
AUSTRIAN POWER GRID (AUSTRIA)



Roch Drozdowski
Head of Mission Smart Grids
GRDF (FRANCE)

15.45 Coffee Break and Exhibition Visit

PANEL SESSION – WITH MOBILE POLLING

16.30 **Which Research Methodology Is Most Reliable When Selecting A Given Energy Storage Technology And Calculating Its True Costs And Value?**

- Comparing ex-post actual results with ex-ante estimates
 - to what extent were those methods of calculation before the storage was implemented actually reliable?
- Which parameters and indicators need to be examined when investing in energy storage such as power driven vs. energy driven applications and extra-fast frequency response?
- How much demand response was assumed?
- Experience from past and current RFPs evaluations



Hareesh Kamath
Project Manager
ELECTRIC POWER RESEARCH INSTITUTE – EPRI
(UNITED STATES)



Kjell Sand
Senior Research Scientist
SINTEF ENERGY RESEARCH (NORWAY)



Andrew Tanner
Vice President, Business Development
GROWING ENERGY LABS (UNITED STATES)



Michele Benini
Head of Power System Scenarios and Energy Efficiency Research Group
RICERA SUL SISTEMA ENERGETICO (RSE) – (ITALY)



Lorraine H. Akiba
Commissioner
STATE OF HAWAII PUBLIC UTILITIES COMMISSION (USA)

17.30 **BUILDING THE ACTION PLAN™ – CHAMPAGNE RECEPTION**



The "Building The Action Plan"™ session is a unique feature of all our Energy Storage World Forums and it is tailored according to the 2015 delegates. This has proven to be an invaluable session that will give you a tangible action list that you can take back to your office thus helping you in your future strategy and technology meetings. Champagne will be served during this session. Find out more on our website.

18.30 Closing Remarks From The BAP Leaders & Drinks Reception



Forum Day 3 Thursday 30th April

8.00 Utilities Breakfast Session At The Exclusive PARCO DEI PRINCIPI Restaurant.
This session is only open to 15 Utilities/TSOs/DSOs who will gather together to discuss issues that you have been facing the last year and how to overcome them. Apply to be part of this exclusive gathering by sending your profile to emily@energystorageforum.com

8.30 Registration & Coffee

9.10 Previous Day Summary And Chairman Introduction


9.30 Identifying The Energy Storage Services Most Economically Viable In The Short Term And Predicting How They Can Generate Revenue From 2015-2025

- Bulk energy services
 - ancillary services
 - transmission infrastructure
- Distribution Infrastructure
 - customer energy management
- Where to invest?

 **Goran Strbac**
Professor of Electrical Energy System
IMPERIAL COLLEGE LONDON (UNITED KINGDOM) 

9.55 When Does Curtailment Justify Storage?

- Using curtailment in balance with storage
- To what extent is it better to operate the grid at 10% curtailment and no storage?
- How and when to purposefully curtail in order to provide:
 - power back
 - ancillary services
 - frequency regulation

 **Hubert Lemmens**
Senior Advisor
ELIA (BELGIUM) 

10.20 Examining The Challenges and Opportunities For Storage In European ICT Networks Telecommunication Applications

- Evaluating the installed base and the opportunities for new storage technologies
- ICT load flexibility synergies with the grid needs
- Latest results from a case study
- What new studies are necessary for these applications?

 **Claudio Bianco**
R&D Engineer
TELECOM ITALIA LAB (ITALY) 

 **Flavio CUCCHIETTI**
R&D Engineer
TELECOM ITALIA LAB (ITALY) 

10.45 Coffee Break & Exhibition Visit

11.30 Evaluating Power Quality and Grid Reliability With Li-ion Batteries at 500/360 kW/kWh

- Lessons learnt in integrating energy storage
- Updates on the economics and business case of the project in the University of Évora
- How to optimise the energy storage project in the next 2 years

11.55  **Apply as a speaker now: emily@energystorageforum.com**

12.20 Calculating The Energy Storage Investment Risk Within Solar Projects

- What are the must have criterias for solar energy storage projects?
- What are the energy storage technologies of interest to the solar industry and why?
- How can solar energy storage projects be financed?

 **Jean-Christophe Bestaux**
CEO
ALINEASOLAR (SPAIN) 

12.40 Lunch and Exhibition visit

14.30 To What Extent Can New Capacity Mechanisms Help Energy Storage?

- Will capacity markets contribute for further integration of renewables or be a distortion and a danger for the energy market?
- Examining new capacity markets with different solutions for generation
- Determining the influence of cross border markets

 **Peter Matt**
Head Of Engineering Services
VORALBERGER ILLWERKE (AUSTRIA) 

 **Otto Pirker**
Chairman of Hydro
Senior Advisor, VERBUND (AUSTRIA) 

14.55 Morocco Case Study Results: Evaluating The Results Of Solar With Storage

- How can the decision to install energy storage be made?
- What installation procedures seem to give better ROI?
- Next step and future improvements for system design

 **Abdellatif Bardach**
Director
ONEE (MOROCCO) 

15.25 Evaluating Results From 9 Solar and Hybrid Microgrids With A Total Installed Capacity Of 550 kWh In Africa

- Forecasting revenue opportunities for Microgrids in Africa
- What are the results from this deployment?
- What kind of grid stability is needed?

 **Caroline Nijland**
Business Development Director
FOUNDATION RURAL ENERGY SERVICES (AFRICA) 

15.50 Coffee Break and Exhibition Visit



16.30 Comparing Cathode Vs Anode Future Research Investment For Achieving Competitive Advantage And Lowering Battery Costs

- What will be the requirements for batteries in the next 3 years?
- Where will most R&D investments be made?
 - anode vs. cathode scenarios
- Looking beyond current chemistries and examining the role of each in the next 3 years

 **Antonio Paez-Duenas**
Senior Technology Advisor
REPSOL (SPAIN) 

16.55 What Is The Impact Of Storage On The Energy System And Can It Replace Or Compliment The Conventional Flexibility Providers?

- What mix of renewables need to be taken into account when doing energy systems modeling?
- When is the period that storage will be useful for the system?
- When can storage replace the peaking plans?

 **Jan Kostevc**
Head of Operational Support
ELES (SLOVENIA) 

17.20 Examining The Return On Investement Of Residential Energy Storage Services From A Utility Point Of View

- What is the expected cost of residential energy storage applications?
- Who owns and operate the system in a partnership?
- Finding the local value of storage and how it can fit into existing installation and service models

 **Timothée Hinchliffe**
R&D Engineer in Energy Economics
EDF (FRANCE) 

17.40 CHAMPAGNE ROUNDTABLE

Delegates will be split into groups to examine the main theme of the conference and compile a summary for the 6000+ members of the Energy Storage World Forum LinkedIn group. JOIN THE GROUP HERE: <http://linkd.in/esfgroup>

18.00 Closing Remarks From The Chair



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 Residential Energy Storage Day
 Tuesday 28 April | Forum Day 1 (includes Networking Drinks)
 Wednesday 29 April | Forum Day 2 (includes BAP & Champagne Reception)
 Thursday 30 April | Forum Day 3 (includes Champagne Roundtable)

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	Microgrid Masterclass as a package with 3 Forum Days (28+29+30 April) OR 2 Forum Days (28+29 April)	500 €	290	500 €	290	500 €	290	500 €

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

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