Ancillary Services and Balancing: How the Future of the European Market should look?

Berlin, Germany
9th – 11th September 2015

Interactive Workshop on 9th September
Storage solutions: achieving flexibility within ancillary services

Attending this Premier marcus evans Conference will Enable You to
- Explore latest developments and requirement of Electricity Balancing Network Code
- Discover opportunities of intraday market in imbalance elimination
- Overcome challenges of renewable energy integration into the grid
- Enhance flexibility within ancillary services
- Taking advantage of demand side response management
- Develop storage solutions for a better intermittency management

Learning from Key Practical Case Studies
- Statnett share experience on their early implementation activities regarding Electricity Balancing
- Energinet.dk discusses how the Nordic Balancing Market was developed
- ENTSO-E talks about learnt lessons from the development of electricity market coupling
- TenneT GmbH, Endesa, Terna, 50 Hertz share their views on introduction of renewable energy into the system
- Iderdrola divulge approach to intermittency management through developing storage solutions
- Shared views on market design for Demand Response participation from DONG Energy, E-Control, RTE, Vattenfall

Expert Speaker Panel
- Thomas Kudela
  Senior Energy System Architect
  Power Hub Technology
  DONG Energy
- Dr. Christos Papadopoulos
  Regional Director Europe
  Energy Exemplar
- Rafael Gonzalez Hombrados
  Head of Scheduling and Market Coordinator
  Endesa
- Ralph Baumann
  Head of Origination and Environmental Markets
  Alpiq AG
- Peter Hoffmann
  Head of System Operations
  TenneT TSO GmbH
- Kjell Barmsnes
  Head of Strategic Systems Operations
  Statnett
- Convenor
  ENTSO-E Working Group
- Mathieu Fransen
  Senior Expert in electricity markets
  ACM – Dutch Authority for Consumers and Markets
  Co-chair
  ACER Electricity Balancing workstream
- Javier Paradinas
  Head of Planning, Markets and Operation
  Iderdrola
- Darko Kramar
  TSO Division, Assistant Director
  ELES
- Milan Vukasovic
  International Project Manager
  Austrian Power Grid AG
- Senior Representative*
  TenneT NL
- Gunnar Lorenz*
  Head of Units – Market
  Eurelectric
- Martin Hogh Møller
  International Advisor
  Energinet.dk
- Athanasios Troupakis
  Market Advisor
  ENTSO-E
- Sebastian Ziegler
  Market and Process Development
  Energy Economics
  50Hertz Transmission GmbH
- Stefan Vögel
  Electricity Department
  E-Control
- Edoardo Fiorino
  Head of Ancillary Services and Production
  Terna
- Per Sundell
  Head of Business Development
  Vattenfall
- Tony Hearne
  Manager, IVADN Project
  ESB Networks
- Aude Rigard-Cerison
  Senior Advisor, Markets Department
  RTE
- *TBC
08.30  Registration and Coffee

08.55  Opening Address from the Chair

09.00  ACER Qualified Recommendation for the Electricity Balancing Regulation
- Current developments and future changes to the code
- Process design and the timeline for regional and European implementation
- The importance of Coordinated Balancing Area’s: Creating a consistent framework for implementation
- Cooperation between TSOs

Mathieu Fransen
Senior Expert in electricity markets
ACM – Dutch Authority for Consumers and Markets
Co-chair
ACER Electricity Balancing workstream

09.40  Electricity Balancing Regulation: Early implementation activities
- Coordinated Balancing areas: A stepwise approach to the European integration model
- Standard balancing products
- Cost Benefit Analysis: Development of methodologies
- Learning through pilot projects

Kjell Barmsnes
Head of Strategic Systems Operations
Statnett
Convenor
ENTSO-E Working Group

10.20  An excellent opportunity to speak to your peers and network effectively. Exchange your views and business cards.

10.30  PANEL DISCUSSION

10.50  How will the future of market harmonization look?
- Challenges of market harmonization
- Balancing code: Implementation and its operational efficiency
- To what extent should the harmonization take place?
- What are the key features of cross-border market development?

Gunnar Lorenz*
Head of Units – Market
Eurelectric
*TBC

Athanasios Troupakis
Market Advisor
ENTSO-E

11.30  Regional Balancing Market with Demand Side participation
- Integration of demand side and distributed generation into Virtual Power Plant
- Simulations of the future trans-national reserve-balancing market between Austria, Italy and Slovenia
- Assessment of economics, power grid impacts, RES integration etc. of a trans-national MB

Darko Kramar
TSO Division, Assistant Director
ELES

Milan Vukasovic
International Project Manager
Austrian Power Grid AG

12.10  Case Study
Development of Nordic RPM
- Nordic regulating power market as model for European integration?
- ENTSO-E pilot project No.5: Future perspectives
- Challenges for cross-border ancillary services
- Can the project show the path forward for a harmonized balancing market?

Martin Høgh Møller
International Advisor
Energinet.dk

12.50  Lunch

14.00  Organisation of cross-border market design
- Correlation of different markets: Reverse versus intraday versus balancing
- How balancing responsibilities will be shared and controlled by market participants
- Challenges and impacts on cross-border ancillary services
- Effective measurement of market efficiency

Senior Representative *
TenneT NL
*TBC

14.40  Case Study
Lessons learnt from the development of electricity market coupling
- Lessons learnt from day-ahead market coupling
- Developments of market processes
- Developments on IT side

Athanasios Troupakis
Market Advisor
ENTSO-E

15.20  Refreshments

15.40  Exploring the interaction between the intraday and the balancing markets
- Competition and compatibility of markets
- Short-term products: The impact on balancing market
- Timeframe overlaps: Elimination of strong interaction

16.20  Case Study
Development of flexible storage facilities: Solution to intermittency management
- Current requirements for future installation devices: Ancillary services
- Storage and their role in ancillary services and balancing
- The need for more electricity reserves: Effective management of dynamic effects on power generation
- Searching for economically viable options: Looking for cheaper storage solutions

Javier Paradinas
Head of Planning, Markets and Operation
Iderdrola

17.00  Are batteries a viable option for electricity storage in Europe?
- Future perspectives of using batteries
- Batteries give additional flexibility but how can they come to the market?
- Batteries providers: Ready solutions for the market

17.40  Closing remarks from the Chair

17.45  End of Day One
08.30 Registration and Coffee
08.55 Opening Address from the Chair

THE INTRODUCTION OF RENEWABLE ENERGY TO ANCILLARY SERVICES AND BALANCING

09.00 The role of renewables in providing power to a system
- Integration of renewable energy: Is it good for a system?
- What is a solution to constrain renewables balancing and energy planning?
- Do we need to adjust energy output forecasting tools?

Peter Hoffmann
Head of System Operations
TenneT TSO GmbH

09.40 Case Study
The impact of renewable energy on the system management
- Assessing the impact of renewables involvement into the system
- The rise of renewables and the need for flexibility of conventional plants
- Extension of renewables into ancillary services
- Balancing renewable energy

Edoardo Fiorino
Head of Ancillary Services and Production
Terna

10.20 Refreshment

10.40 Case Study
Prequalification of renewable energy within balancing and ancillary services
- Renewables product definition and their extension
- Identification and specification of products
- Technical parameters: Product length, time and etc.

Sebastian Ziegler
Market and Process Development
Energy Economics
50Hertz Transmission GmbH

PANEL DISCUSSION

11.20 Renewable energy and its involvement into ancillary services
- Can renewable energy deliver ancillary services and at what cost?
- Tools to provide stability and flexibility to a power grid system
- Possibility of highly regulated wind energy market to participate in ancillary services: Can it survive and help the system?

Rafael Gonzalez Hombrados
Head of Scheduling and Market Coordinator
Endesa
Peter Hoffmann
Head of System Operations
TenneT TSO GmbH

TAKING ADVANTAGE OF DEMAND SIDE RESPONSE

12.00 Case Study
Capitalise on Demand Side Response in provision of ancillary services
- Practicalities of demand side response: Understanding benefits for the market
- Aggregation of demand response: Bringing more flexibility for the demand side
- How to make demand response more feasible?
- Introduction of Virtual Power Plants

Thomas Kudela
Senior Energy System Architect
Power Hub Technology
DONG Energy

13.50 Case Study
Regulatory View on Demand Response Participation in Balancing Market
- Fully market based approach in practice
- Participation of “new” players specially demand side
- Addressing barriers to progress
- Creating incentives for participation

Stefan Vögel
Electricity Department
E-Control

14.30 Case Study
Demand side response management in Sweden
Per Sundell
Head of Business Development
Vattenfall

15.10 Case Study
Market design for demand response: The French experience
- What are the main obstacles to the development of demand response management?
- How can independent DR operators participate to DR?
- How should market design evolve to allow DR participation?
- What is the role of TSO's?

Aude Rigard-Cerison
Senior Advisor, Markets Department
RTE

15.50 Refreshment

FLEXIBILITY: RESPONDING TO BETTER POWER GENERATION

16.10 Deployment of Flexibility products
- The impact on flexibility on various actors
- Opportunities and threats for DSOs
- How best to deal with Congestion Management
- Evolution of capacity market: Ensuring flexibility within ancillary services

Tony Hearne
Manager, IVADN Project
ESB Networks

16.50 Case Study
Pumped Storage in flexibility markets: The future of a flexibility electricity market design
- Pump storage and flexibility needs: Practical case study
- Intraday market developments
- Trade off Intraday versus Ancillary Service markets: How to separate markets and avoid overlap?
- Product and Market development

Ralph Baumann
Head of Origination and Business Development
Alpiq

17.30 Closing Comments from the Chair
17.35 End of Conference

Business Development Opportunities
Does your company have services, solutions or technologies that the conference delegates would benefit from knowing about? If so, you can find out more about the exhibiting, networking and branding opportunities available by contacting:
Athul George, Sponsorship Director, marcus evans London
Tel: + 44 20 3002 3172, E-Mail: AthulG@marcusevansuk.com
### Interactive Conference Workshop

**Storage solutions: achieving flexibility within ancillary services**

**9th September 2015**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.00</td>
<td>Registration and Coffee</td>
</tr>
<tr>
<td>13.15</td>
<td>Workshop Leader’s Introduction and Opening Remarks</td>
</tr>
<tr>
<td>15.30</td>
<td>Coffee and Networking Break</td>
</tr>
<tr>
<td>17.00</td>
<td>Closing Remarks from the Workshop Leader</td>
</tr>
</tbody>
</table>

#### Storage solutions: Achieving flexibility within ancillary services

- Increase role of renewable energy: the need for energy storage market expansion
- Market conditions for storage solutions in Europe
- Available requirements for the future storage devices
- Business models for energy storage solutions application

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**Who Should Attend**

- VPs, Directors, Heads, Managers of:
  - Ancillary services
  - Balancing
  - Energy/ Market Management
  - Operational Support
  - Operations (Systems/ Grid)
  - Market Affairs/ Design/ Management/ Development
  - Cross-Border Trade
  - Planning
  - Network
  - Scheduling
  - Dispatch

**From:**

- Transmission System Operators (TSOs)
- Electricity Producers/ Generators
- Energy Traders

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### About the Masterclass Sponsor

**Energy Exemplar** leads the field in energy market modelling. Energy Exemplar is an ISO 9001:2008 certified company for quality software development of the best-in-class Electric and Gas Market Simulation Software with a customer base spanning the globe and a track record of success spanning more than 15 years. We develop, implement and support the PLEXOS® Integrated Energy Model software.

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