



Conference on

# GRID-SCALE ENERGY STORAGE

Technology, Regulation, Business Case and Funding  
June 21-22, 2011, Hotel Metropole, Brussels, Belgium

Hosted by:

Global **Transmission** Report

Information and analysis on the global electricity transmission industry

[www.globaltransmission.info](http://www.globaltransmission.info)

# MISSION

Grid-scale energy storage is increasingly being seen as a solution to integrating a large penetration of renewable energy sources, congestion management and load shifting. While the majority of energy storage technologies available are tried, tested and trusted, market dynamics that focus on meeting demand with supply have meant that storage has not been deemed financially viable. Until now.

Technology firms have been able to make considerable improvements to their offer, as a result of which investors are starting to take interest in these business models. We are now starting to see venture capitalist-backed energy storage projects in the US, thanks to the Department of Energy's stimulus fund, and in Europe, in the race towards meeting the 20-20-20 target.

The drive for change in the way storage is viewed and used is becoming more and more important as an element that will help Europe achieve its 20-20-20 target, either through assisting the integration of renewables or as a low-carbon alternative to building combined cycle gas turbine power plants to meet peak-time demand. Also, Europe is considered to be at the forefront of the transition towards smart grids and storage will need to play an active part in supporting the customer-orientated smart grids of the future.

The regulators will have to play a key role in driving this change by defining mechanisms that allow storage to be used as an alternative to generation that also benefits utilities in reducing CO<sub>2</sub> emissions, and as a key enabler of effective demand side management.

In response to these circumstances, Global Transmission will host a conference, **Grid-Scale Energy Storage**, on June 21-22, 2011 at Hotel Metropole in Brussels, Belgium. The objective of the conference is to demonstrate viable and profitable business solutions for grid-scale energy storage and to provide networking opportunities for all participants interested in driving change in how storage is used.

This conference is unique in that it focuses only on grid-scale energy storage and issues relating to funding and finance. It will discuss whether energy storage can be a profitable solution for network support services and load shifting.

Speakers will include regulators, utilities, technology providers, specialist consultants, energy storage-related associations and investors such as venture capitalists and banks.



## KEY ISSUES TO BE EXPLORED

The one-and-a-half day conference will have general/plenary sessions and discussions attempting to address issues such as:

- ❖ What is driving the need for energy storage?
- ❖ Can energy storage be considered a competitive alternative to the addition of conventional power generation?
- ❖ Is the technology mature enough and are there market-ready solutions?
- ❖ What changes can be effected for large-scale commercialisation of the technology?
- ❖ How can storage address issues related to grid connections for renewable energy developers?
- ❖ What are the viable business models for energy storage?
- ❖ What has been the utility experience so far and what can be learnt from it?
- ❖ What are the challenges being faced and what is the outlook on energy storage?
- ❖ What are the current regulations and what future policy steps can be taken for energy storage?
- ❖ Why is storage critical to the transition towards smart grids?
- ❖ How can energy storage projects be made financially viable?
- ❖ What are the various funding options available for energy storage projects?
- ❖ What "green" funds are available for energy storage?
- ❖ What are the risks in funding energy storage projects in a dynamic market?

# AGENDA (Tentative)

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## DAY 1: Tuesday, June 21, 2011

	Time	Session	Questions to be addressed
Opening	8:30-9:30	<b>REGISTRATION</b>	
	9:30-9:40	Opening remarks: The need for viable grid-scale energy storage now	
Technology & Applications	9:40-11:05	Overview of market-ready solutions: Technology vis-à-vis application and update on success stories Presentations by technology companies	How has the technology evolved? Can energy storage be considered a competitive alternative to the addition of conventional power generation?
	11:05-11:50	Panel discussion and Q&A	
	11:50-12:10	<b>BREAK</b>	
Energy Storage, Renewables & Smart Grid	12:10-12:40	Grid connections and storage	How can storage address issues related to grid connections for renewable developers? What are the technical challenges associated with connecting storage to the grid?
	12:40-13:00	Energy storage and smart grids	Why is storage critical to the transition towards smart grids?
Lunch	13:00-14:00	<b>LUNCH</b>	
Utility Perspective & Case Studies	14:00-15:00	Utility perspective: Future energy storage requirements and the challenges being faced	Can energy storage really be a competitive alternative to building power plants and, therefore, be intrinsic in improving efficiency and reducing utility CO <sub>2</sub> ?
	15:00-15:30	Lessons learnt, case studies and future opportunities	What has been the experience so far and what are the lessons learnt?
	15:30-15:45	<b>BREAK</b>	
Regulation & Policy	15:45-16:15	Overview of the current regulations and policy Update on the thinking regarding electricity storage	Should storage be considered as more than network support or additional generation? What does the future hold for the policy towards energy storage?
	16:15-16:45	View from the Energy Storage Association Update on the Energy Storage Challenge	What are the challenges in grid-scale energy storage? What is the outlook for the industry? What incentives can be devised to promote the use of energy storage?
Panel Discussion	16:45-17:25	Panel discussion and Q&A	
	17:25-17:30	Close of session	
	17:30	<b>END</b>	

## DAY 2: Wednesday, June 22, 2011

	Time	Session	Questions to be addressed
Business Models & Financing Solutions	9:00-9:05	Recap of Day 1	
	9:05-9:20	Overview of the market, demand drivers, players, trends, etc.	What is driving the need for energy storage, and why now?
	9:20-9:50	Business models for energy storage	How to make energy storage projects viable?
	9:50-10:05	Green funds for energy storage	What "green" funds are available for energy storage?
	10:05-10:50	Utility perspective: Self-financing, investment planning/deferral be funded through capex and opex?	What are the financial benefits of investing in energy storage compared to network upgrades, and how can these projects
	10:50-11:20	Panel discussion and Q&A	
Financial Models & Risks	11:20-11:40	<b>BREAK</b>	
	11:40-11:55	Lenders' view on financial risk	What are the real risks in funding energy storage projects in a dynamic marketplace?
	11:55-12:10	Financial models for energy storage	What should be the true financial model for energy storage? Is it a generation or a transmission tool?
	12:10-12:50	Panel discussion and Q&A	
	12:50-13:00	Conclusions and wrap-up	
Lunch & End	13:00-14:00	<b>LUNCH &amp; NETWORKING</b>	

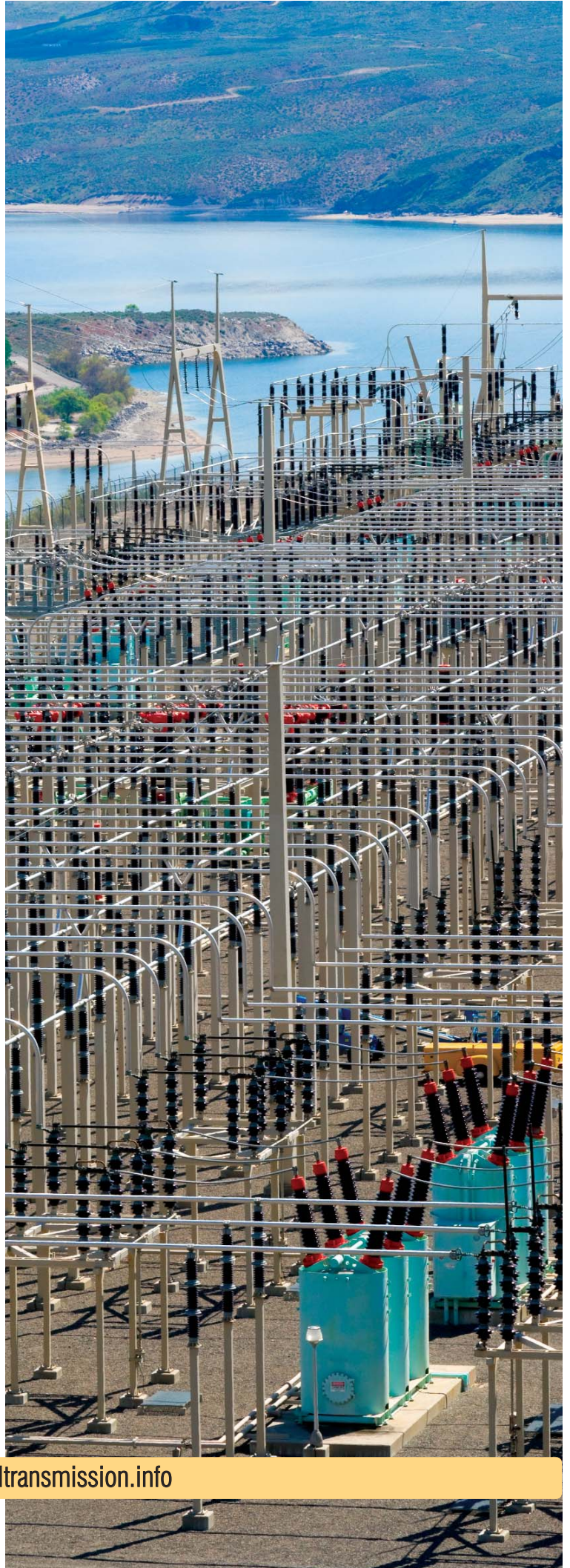
# WHO SHOULD ATTEND?

The event is expected to draw participation from executives, managers and decision-makers from:

- ❖ Transmission grid operators/companies
- ❖ Distribution utilities
- ❖ Power generators
- ❖ Renewable energy developers
- ❖ Regulators and policymakers
- ❖ Energy storage technology providers
- ❖ Equipment manufacturers
- ❖ Research and development organisations and individuals
- ❖ Technical institutes
- ❖ Financiers and venture capitalists
- ❖ Industry consultants

## KEY BENEFITS TO PARTICIPANTS

- ❖ Hear from utility experts, regulators, financiers, venture capitalists and consultants about grid-scale energy storage
- ❖ Learn about market-ready technologies and solutions, and utility experiences so far
- ❖ Analyse viable and profitable business strategies for deploying grid-scale energy storage
- ❖ Examine efficient ways of connecting storage to the grid
- ❖ Evaluate the role energy storage can play in the transition towards smart grids
- ❖ Discuss the regulatory/policy developments on energy storage and assess their impact on the industry
- ❖ Understand the key challenges and assess the future requirements and market opportunities for grid-scale energy storage
- ❖ Review the financial models for energy storage and the lenders' perspective
- ❖ Participate in interactive plenary discussions
- ❖ Network with all those interested in driving change in the way storage is used.



# ABOUT THE ORGANISERS

**Global Transmission** is a leading provider of information and analysis on the global electricity transmission industry. It publishes the **Global Transmission Report** (a monthly newsletter) and **Global Transmission Weekly** (a weekly update). It also operates the [www.globaltransmission.info](http://www.globaltransmission.info) website.

**Global Transmission** provides information on all the key developments, trends and issues in the sector. It tracks major projects, contracts and investments. It profiles leading transmission system operators. It reports on regulatory initiatives and examines their implementation. It provides the latest data and statistics on the sector. It also features the views and perspectives of top industry experts and players.

Our clients include leading organisations across the world such as **ABB, Siemens, Alstom, GE Energy, State Grid International Development, International Energy Agency, European Investment Bank, Nexans, Bechtel, Mott MacDonald, Balfour Beatty, Pöyry, Nexant, SNC-Lavallin, MidAmerican Energy Holdings Company, Maxwell Technologies, Power Grid Corporation of India Limited, Red Eléctrica de España, Terna, Elia, Reliance Energy, KEC International, Swissgrid, Brookfield, Statnett, Boston Consulting Group, El Sewedy Cables, National Contracting Company, Energinet, Energostroyaladka, CTEEP, EdF, Hyosung, AltaLink, Suez-Tractebel, MWB Shanghai, Xcel, Teshmont, Vattenfall, Dow Chemicals, Alberta Electric System Operator, AIC-USA, Hubbel Power Systems, Efacec Energia, ISA Interconexion Electrica, Israel Electric Co., Trade Wind, Hythro Power, BHP Billiton, Eskom, Tyco Electronics, EFACEC, UB Engineering, PJM Interconnection, etc.**

## SPONSORSHIP (Limited to four organisations)\*

*This conference will provide an excellent opportunity for organisations to showcase their products and services. The deliverables include:*

- *Two delegate registrations (full conference)*
- *Table space at the conference*
- *Distribution of sponsor promotional material to each delegate*
- *Logo presence at the conference*
- *Acknowledgement on conference website*
- *A hyperlink to the organisation's website*
- *Speaker slot (if relevant, subject to approval of organisers)*

*\* Available on a first-come, first-serve basis.*

For further information, contact: Ms Yasmeen Chopra, Global Transmission Report  
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## DELEGATE FEES

The delegate fee is EUR1,500 (USD2,100) for one participant, EUR2,400 (USD3,360) for two, EUR3,300 (USD4,620) for three and EUR4,200 (USD5,880) for four.

The delegate fee is inclusive of VAT.

## HOTEL INFORMATION

### Hotel Metropole

31, place de Brouckere, B-1000 Brussels, Belgium

For room reservations, please contact:

Reservations Hotel Metropole, Brussels

Tel: +32-2-2142425 or +32-2-2142426 Fax: +32-2-2180240

Email: [resa@metropolehotel.be](mailto:resa@metropolehotel.be)

## CONTACT US

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To register, email us to: [registration@globaltransmission.info](mailto:registration@globaltransmission.info)  
or visit us at [www.globaltransmission.info](http://www.globaltransmission.info)

# DELEGATE FEES

Delegates	Price before April 21, 2011 (inclusive of VAT)	Price before May 21, 2011 (inclusive of VAT)	Price after May 21, 2011 (inclusive of VAT)
One delegate	€1,050 or \$1,470	€1,275 or \$1,785	€1,500 or \$2,100
Two delegates	€1,680 or \$2,352	€2,040 or \$2,856	€2,400 or \$3,360
Three delegates	€2,310 or \$3,234	€2,805 or \$3,927	€3,300 or \$4,620
Four delegates	€2,940 or \$4,116	€3,570 or \$4,998	€4,200 or \$5,880

(Conference fee includes tea/coffee and lunch for both days of the conference.)

\* VAT - The VAT rate in Belgium is 21 per cent and is applicable to all registration fees.

## REGISTRATION FORM

I would like to register for the conference

Please send me more information

NAME/DESIGNATION \_\_\_\_\_ COMPANY \_\_\_\_\_

MAILING ADDRESS \_\_\_\_\_

PHONE \_\_\_\_\_ MOBILE \_\_\_\_\_

FAX \_\_\_\_\_ EMAIL \_\_\_\_\_

## PAYMENT OPTIONS

1. Credit Card: To make payments by credit card, please visit [http://www.globaltransmission.info/shopping\\_cart.php](http://www.globaltransmission.info/shopping_cart.php)

All credit card payments will be subject to standard credit card charges

### 2. Wire Transfer:

Beneficiary: India Infrastructure Publishing Private Limited  
Bank Name: The Royal Bank of Scotland N.V.  
Bank Address: M-6 Hauz Khas, New Delhi - 110016, India  
Bank Account No: 1050338  
Swift Code: ABNAINBBDEL

Global Transmission is a division of India Infrastructure Publishing Private Limited.

## TERMS AND CONDITIONS

### Payment Policy

Full payment must be received prior to the conference. Payment can be made in Euro (€) or US dollars (\$). VAT (21%) is included in the conference fees. VAT may be reclaimed by the delegates from the tax authorities after the event.

### Cancellations

- Cancellations received in writing 30 days (May 21) before the date of the conference will receive a full refund, minus a service charge/administration fee of €150 or \$210. **We regret that no refunds will be made for any cancellations received less than 30 days prior to the conference.**
- Substitutions/name changes are welcome at no extra charge. Please send these in writing at least two days prior to the conference.
- **Disclaimer:** Global Transmission shall assume no liability whatsoever in case the event is postponed or cancelled due to a fortuitous event or unforeseen occurrence that renders the performance of this conference impracticable, illegal or impossible. For purpose of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency. Global Transmission's responsibility is limited to return of the registration fee only and is not liable for any cost in relation to travel and accommodation.
- Please note that it may become necessary for reasons beyond the control of the organisers to make alterations to the content and timing of the programme or speakers.

## CONTACT US

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