30 June - 1 July 2010, University of San Diego, USA

A strategic senior executive summit

CHARGED2020: THE GLOBAL ENERGY STORAGE FORUM

Driving sustainable innovation along the energy storage and smart-grid value chain

Addressing today's energy storage challenges

This annual senior executive summit will bring together key business leaders, senior technologists, battery entrepreneurs and venture capitalists along the energy storage value-chain

The aim is to discuss strategic challenges and opportunities for creating a sustainable energy future through developing cutting-edge technologies

Apart from best practice cases studies and interactive panel discussions led by key players of the battery and energy storage industry, this summit will provide a unique and exciting opportunity for delegates to network with their peers across multiple industries along the value-chain

Hear experts speak on

- Developing cutting-edge energy storage and smart grid innovations
- Designing high-performance energy storage technologies that are safe, low-cost and reliable
- Establishing successful strategies for the commercialization of energy storage and smart grid technologies
- Enhancing battery innovation through successful value chain integration and collaboration
- Meeting the challenges of new standards, market discontinuities and regulation
- Aligning smart grid and battery R&D to the marketplace to attract venture capital and government funding

To register, please go to:
http://www.charged2020.com/Registration.html

International senior executive summit with confirmed speakers including

Terry Mohn
Chief Innovation Officer, Balance Energy
BAE Systems

Reyad Fezzani
CEO, BP Solar
BP

Terry M. Copeland
President & CEO
Altairnano

Eric Isaacs
Director
Argonne National Laboratory

John M. Miller
Vice President, Systems, Applications & Integration
Maxwell Technologies

Antonio Reis
Vice President, Engineering
International Battery

Hugh McDermott
Vice President, Global Utilities & Energy
Better Place

Jeff Campbell
Chairman of CRT Board & Former CEO of Burger King
Chairman's Round Table

Gerd Goette
Managing Partner, Siemens Venture Capital
Siemens

Co-organized by: University of San Diego; DestinHaus LLC

Program developed by: Merlien Institute; mark mack llc

Strategic Partner: CleanTech San Diego

For speaking or sponsorship opportunities, please contact info@charged2020.com

CHARGED 2020: THE GLOBAL ENERGY STORAGE FORUM

WEDNESDAY, 30 JUNE

08:00 Registration and welcome coffee
08:45 Opening words from organizer and chairperson
Dr Murli Nathan, *CEO* **- DestinHaus**
Prof George Reed, *Department of Leadership Studies*
University of San Diego

Keynote Presentation:
09:00 Driving economic competitiveness through energy storage and smart grid innovation
- Identifying leading technologies for electrical energy storage and their development
- Comparing the costs of energy storage technologies in terms of capital, fixed and variable costs
- Understanding the economics of electrical energy storage and the key success factors that will drive economic competitiveness

Reyad Fezzani - *Chief Executive Officer, BP Solar* - **BP**
(Session outline tbc)

09:45 The quest for the perfect battery: designing high-performance energy storage technologies that are safe, low-cost and reliable
- Developing a new battery technologies that enhances energy density and provide fast charging times
- Ensuring that new technologies are economically viable and can be integrated seamlessly into existing applications
- Discussing new and existing battery innovations that are potential winners

John M Miller - *Vice President, Systems, Applications & Integration* - **Maxwell Technologies**

10:30 Networking Coffee Break

11:00 Identifying the next breakthrough energy storage technology: selecting a technology that is economically viable
- Comparing the reliability, density and costs of new battery technologies for EVs and electronic devices
- Assessing the commercial viability of emerging technologies e.g. Nickel Strip, Paper batteries etc.
- How do we develop a manufacturing capability for these new battery technologies?

Eric Isaacs - *Director* - **Argonne National Laboratory**
(Session outline tbc)

11:45 Applying lean manufacturing processes in the production of large format lithium ion batteries
- Implementing process validation to manufacturing processes to achieve efficiency, consistency and control
- Developing an innovative manufacturing process that provide robust key indicators for energy storage systems cycle life
- Engaging customers in the product development from product requirements document through manufacturing

Antonio Reis - *Vice President, Engineering*
International Battery

12:30 Lunch Break

Interactive Workshop
14:00 Developing successful strategies for the commercialization of energy storage technologies
The energy storage industry is currently facing increasing competition and rising costs. This workshop will present the key issues faced by battery innovators on how to commercialise their battery innovation. Delegates working in teams will discuss and brainstorm best practices on how to commercialise their products successfully in new markets. Issues to be discussed may include:
- Finding the resources to transit from laboratory to a validated new product
- Commercialization of the technology (who, what when, where?)
- Building ancillary service markets to energy storage
- Where best to market new technologies?
- Decreasing time-to-market in all areas of energy storage technologies
- Branding and marketing of energy storage systems

15:30 Networking Coffee Break

16:00 How to brand and market energy storage technologies successfully in times of limited budget and funding?
Jeff Campbell - *Former CEO of Burger King, Former Senior Vice President, Brand Development of PepsiCo*
Chairman's Round Table
(Session outline tbc)

16:45 Developing a successful strategy to attract venture capital financing to your energy storage business
- Ensuring accountability and good business case for venture capital funding
- How to commercialize new products at the right place and the right time?
- Ensuring ROI for investors through robust project execution and budget control

Gerd Goette - *Managing Partner, Siemens Venture Capital*
Siemens
(Session outline tbc)

17:30 Closing remarks by chairperson

17:45 Networking Reception

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THURSDAY, 1 JULY

08:45 Opening words from organizer and chairperson
Dr Murli Nathan, *CEO* **- DestinHaus**

Keynote Presentation:
09:00 Towards a green car revolution: the case of the Nissan Leaf
- Inventing a revolutionary electric car that has long mileage, quick charging and a high top speed
- Utilizing breakthrough lithium-ion technology to power 100 miles on a battery charge
- Establishing a successful strategy for the mass production of Nissan Leaf in the US

09:45 Meeting the challenges of new standards, market discontinuities and regulation in the energy storage industry
- Will Obama's new nationwide standard for greenhouse gas emission speed up innovation in the battery industry?
- Assessing the impacts of EPA regulations on the energy storage industry
- Increasing or lack of regulation: will it hinder or accelerate battery innovation?

10:30 Networking Coffee Break

11:00 Enhancing battery innovation through successful value chain integration and collaboration
- Understanding the energy storage value chain in order to enhance product development
- Identifying the right technology and industry partners for product collaboration
- Removing barriers and communicating effectively along the value chain

11:45 From gas to electric stations: implementing a revolutionary electric car grid
- Anticipating the growth in EV adoption in the US and around the world
- Building a national network of EV charging stations that are fast and convenient for EV drivers
- Re-configuring the energy grid to accommodate the impact of EV charging stations
- EVs adoption is inevitable: It's time to integrate EVs into smart grid strategies!

Hugh McDermott - *Vice President, Global Utilities & Energy*
Better Place

12:30 Lunch Break

Panel discussion
14:00 Emerging energy generation and storage technologies for renewable energy sources: how do we generate, store, manage and distribute energy efficiently and effectively? Topics to be discussed may include:
- Solar, wind, nuclear energy sources
- How do we use smart-grid for distribution?
- What are the consequences to the environment?
- What are the challenges facing the industry?
- Grid-based storage systems the future?

15:00 Networking Coffee Break

15:30 Charging the energy revolution: modernizing power grids to increase safety, reliability and efficiency
- Discussing the impacts of wide-spread utility scale renewable generation on the electric grid
- Developing state of the art grid-size batteries for mitigating grid instability
- Gaining insights into commercially deployed projects using fast energy storage for grid stabilization

Terry M. Copeland - *President & CEO* - **Altairnano**

16:15 Implementing large renewable energy resource: is storage the solution to renewable generation?
- Deploying carbon reducing technologies such as wind, solar, geothermal and plug-in vehicles
- Meeting the challenges of storage and transportation of renewable energies such as wind and solar
- Developing a smarter grid in which users can produce their own power and provide its own localized storage

Terry Mohn - *Chief Innovation Officer, Balance Energy*
BAE Systems
(Session outline tbc)

17:30 Closing remarks from the chair and organizer

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