

## ESA's Mini Meeting at DOE's Annual Peer Review Highlights International Perspective on Storage

A highlight of the annual Department of Energy peer Review meeting in Washington DC (November 10-11, 2004) was the break for a "Mini Meeting" held by the ESA. This year, Dr. William Hassenzahl started off the meeting with a description of the ESA, its goals, and an update on future activities (see "Future Events" and an invitation to join on page 2). He then introduced Dr. Philip Symons, the previous chairman of the ESA, who chaired the Mini Meeting. Dr. Symons' association with energy storage goes back many years and he has often commented on the varying proportions of a nation's generating capacity that is represented by energy storage. Although the US and Canada have many storage plants, the proportion is not as high as in Europe or Japan, and with this in mind he had invited speakers to give their perspectives on storage throughout the world.

The international perspectives were set by three excellent presentations. Dr. Yoshiro Owadano of the National Institute of Advanced Industrial Science and Technology of Japan gave a very thorough summary of the status of various storage projects in Japan. He started with a description of the Japanese industrial support organizations and described the changes from MITI to METI.

Dr. Owadano referred to pumped hydro, including the demonstration seawater plant in Okinawa and other new plants under construction by TEPCO. Studies had been made to examine the feasibility of CAES in the weak geology of Japan, and some tests to demonstrate the feasibility of water sealed reservoirs had been successful. Other technologies were covered, including Mitsubishi Heavy Industries' work on lithium batteries both for EV's and for sta-

tionary applications. Chubu Electric Power was testing a 5-MW 5-MJ SMES device and TEPOC and NGK had built many NAS battery installations. Kansai Electric Power was developing redox flow batteries.

Sridhar Samudrala of US Energy Association took us on a trip around the world, describing how partnerships between US companies and power companies in developing regions could bring benefits to both companies. He used examples of how BPA had worked in Bangladesh to sup-



Speakers at the ESA's mini meeting in Washington included from left to right, Gerard Thijssen, Yoshiro Owadano, Philip Symons, Sridhar Samudrala, and Bill Hassenzahl.

port the power company their in further development of the power system. Energy storage had a role to play as an enabling technology in many developing countries, supporting both on- and off-grid applications and enabling greater penetration of electrical power into the network.

Gerard Thijssen, an ESA Board member and a senior consultant with KEMA took us forward in time on a visit

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to Europe set in 2020 and beyond where aggressive targets for renewable generation would have major impact on the operation of the grid. There is no doubt that if 75 GW of generation in Europe were to come from wind power in 2010, that some of the existing system problems would increase. The debate was on how to get there. Mr. Thijssen stimulated discussion by suggesting



A European wind turbine interfaces with the grid.

1000 energy storage plants of 15 MW each. The provocative discussion could have gone on for most of the evening had it not been set into context by a change of venue to a reception hosted jointly by the ESA and the US EA. ◀

## Future Events

### Battcon 2005

**Miami Beach, Florida, May 2-4, 2005.** The ESA joins the IEEE Power Engineering Society once again as technical co-sponsors of the conference. To learn more about Battcon, visit the conference Web site: <http://www.battcon.com>, or follow the link from ESA's Web site.

### ESA 2005

**Toronto, Ontario, May 23-25, 2005.**

### EESAT 2005

**San Francisco, California, October 16-18, 2005.**

### ESA 2006

**Knoxville, Tennessee.**

Details will follow in subsequent newsletters and on the ESA Web site.

## About the ESA

### Our Mission

To promote the development and commercialization of competitive and reliable energy storage delivery systems for use by electricity suppliers and their customers, thereby bringing financial and technical benefits for energy storage operators.

### Membership Benefits

- ▶ Gain early knowledge of the latest developments in energy storage technology and field/customer applications of new/innovative storage technologies, and information on how these can be used for member's business advantage
- ▶ Early notification of upcoming business leads in US and abroad
- ▶ Enhanced exposure to potential customers for energy storage products and services
- ▶ Ability to network with users, manufacturers, and researchers in the energy storage field
- ▶ Access to ESA contact list of more than 800 names of industry leaders interested in energy storage
- ▶ Ability to actively interface with key representative from government and industry to receive insights into energy storage markets and strategic directions of key industrial firms

### Join Now

General Membership is \$750 per year which includes attendance at meetings, conference proceedings, special tours, and social events.

To join the ESA, complete our on-line membership form. You will be asked to provide credit card information over our secure transaction server.

For questions about membership in the ESA, contact Brad Roberts at (414) 423 8776 x109 or [membership@electricitystorage.org](mailto:membership@electricitystorage.org).