

International Conference
Energy Storage
(Including Pumped Storage)

(Under the aegis of CIGRE NSC- C6 on Active Distribution System & Distributed Energy Resources)

27-28 June 2019

Auditorium of SCOPE Convention Centre, SCOPE Complex, Lodhi Road, New Delhi



SPECIAL ATTRACTIONS

- Theme addresses by renowned National & International Experts
- Opportunity to interact with the Speakers from CEA, CERC, SECI, POWERGRID, POSOCO, GETCO; TATA POWER; BSES; India Energy Storage Alliance, Indo German Energy Forum, CTR, Bergen, Sterlite Power, etc.
- **Technical Visit to Energy Storage Plant of Tata Power Delhi Distribution Ltd. (TPDDL)**

TOPICS

- Policies & Regulatory Matters w.r.t. Energy Storage
- Applications of Energy Storage
- Business Models for deploying Energy Storage
- Energy Storage Applications & Technologies:
- Pumped Storage/ Li-ion Batteries/ Flow batteries / Fuel cells etc.

Organised by



**Central Board of
Irrigation & Power**



CIGRE-India

in Association with



***POWERGRID**



GETCO



***Solar Energy
Corp. of India**



Supported by



BERGEN

Sterlite Power

**Confirmation awaited*



A.S. Bakshi
*Chairman Organising-
Cum-Technical Committee
& Former Member, CERC*

INVITATION

The Central Board of Irrigation & Power is organizing an International Conference on 'ENERGY STORAGE' on 27-28 June 2019 at New Delhi. We have pleasure in extending a cordial invitation to individuals and institutions concerned for participating in the above Important Conference.



V.K. Kanjlia
*Secretary
CBIP*

ANNOUNCEMENT

Central Board of Irrigation and Power and CIGRE-India in association with Powergrid, GETCO, Solar Energy Corporation of India, Indo German Energy Forum, Indian Energy Storage Alliance and IEEMA are organizing an International Conference on "Energy Storage" 27-28 June 2019 at Auditorium of SCOPE Convention Centre, SCOPE Complex, Lodhi Road, New Delhi. The conference is supported by CTR Limited, Sterlite Power and Bergen Group of Companies.

INTRODUCTION

In India generation of electricity from renewable energy sources is growing at a very high rate. The total installed capacity of renewable energy in India as on February 2019 was around 22 per cent (75 GW) of total energy. Indian government has set an ambitious target of 227 GW of renewable power generation by 2022.

This increasing dependency on renewable generation in turn is posing challenges to utilities and system operators. One of the key issues with renewable generation like PV solar, wind, is that their generation is of intermittent nature. Energy Storage System (ESS) can provide support in balancing the variable generation of renewable energy. When ESS is properly deployed it can help to improve the grid reliability and asset utilization.

ESS is classified on the basis of the form of energy stored such as Pumped Storage, Batteries (Lithium-ion, Flow Batteries, Sodium Batteries, Nickel based Batteries etc.), Fly wheel, Compressed air, Super capacitors, etc. When there is a sudden change in wind speed or passing cloud, it causes a rapid change in the output of wind generation or a PV array leading to significant drop in MW output (by 70 to 80 per cent) in about a minute's time. Battery can discharge quickly to ensure that the net facility output is smoothened.

Renewable energy sources, when coupled with energy storage, can immensely benefit the grid by smoothing renewable generation output, improving power quality and making the renewable grid more reliable.

When power system disturbances occur, synchronous generators are generally not always able to respond rapidly enough to keep the system stable. If high-speed real or reactive power control is available which is possible through the use of flexible ac transmission systems (FACTS) devices, load shedding or generator dropping may be avoided during the disturbance. However, a better solution would be to have the ability to rapidly vary real power without impacting the system through power circulation. This is where energy storage technology can play a very important role in maintaining system reliability and power quality.

In view of the recent developments & innovations taking place at a fast pace, it is extremely necessary for the professionals to update their knowledge. The main purpose holding this conference is to provide a forum for open discussions and exchange of information on the latest state of the art technology and to come out with positive / concrete recommendations on the subject. It is in this context that the International Conference on "Energy Storage" has been planned. By participating in this conference you will have the opportunity to meet the eminent experts on the subject, in order to build up a state-of-the-art view on the new requirements; solutions proposed and expected improvements on the subject of Energy Storage.

TOPICS

The topics to be discussed in the Conference are as follows:

- Energy Storage for Balancing and System Stability Including Pumped Storage and Batteries - Lithium-ion, Flow Batteries, Sodium Batteries, Nickel based Batteries etc.
- Various Type of Energy Storage, its Role, Type of Storage and Typical Applications
- Energy Storage Technologies and Applications
- Energy Storage Management - Store Power during Lean Period, to Use at Peak
- Various Applications of Battery Energy Storage – Frequency Regulation, Energy Time Shift, Reliability, Power Quality, Energy Arbitrage, Flexibility, Ancillary Services, Investment Deferral etc.
- Policies and Regulations for Grid Scale Energy Storage
- CASE STUDIES

Experts who desire to present paper/case studies on above topics are welcome to submit their papers by 15th June 2019.

DATES AND VENUE

The Conference will be held on 27-28 June 2019 (Thursday, Friday) at Auditorium of SCOPE Convention Centre, SCOPE Complex, Lodhi Road, New Delhi - 110003. The Conference timings will be 10.00 AM to 5.30 PM. The registration will start at 9.00 AM on 27th June 2019.

WHO SHOULD ATTEND

Senior officers of Power Utilities, PSUs, State Govt./SEB's Nodal agencies, Energy Planners, Private Entrepreneurs, Manufacturers, Development Consultants, Research/ Academic Institutions, Construction Companies and Financial Institutions etc.

REGISTRATION FEE

Registration fee for the delegates is as follows:

- (i) Rs. 12,000/- per participant.
- (ii) Rs. 10,000/- per participant for members of CBIP and CIGRE.

GST 18% extra. (GST No. 07AAAJC0237F1ZU)

The Registration fee covers the registration kit, tea/coffee/lunch during the conference. The Conference is non-residential. Participants will have to make their own arrangement for travel, boarding and lodging, etc. All payments be made through DD/ cheque at par in favour of 'Central Board of Irrigation & Power', payable at Delhi or amount deposited/ transferred to CBIP A/c no. 00031110004411, MICR No. 110240001, HDFC Bank, Swift Code : HDFCINBBDEL, IFSC: HDFC 0000003, Address: 209-214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi 110001

The perspective participants, desirous of attending the Conference may register themselves by sending the Registration Form to CBIP along with necessary payments

CALL FOR ADVERTISEMENTS

A limited space for insertion of advertisement of various organizations in the Proceedings Volume is being provided. The interested organizations are required to send the advertisement material, i.e. Pdf, JPEG or Corel Draw format alongwith payment as detailed below:

- Back Cover Page Rs. 35,000/-
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- First Opening Page Rs. 20,000/-
- Full Page (A4) (Inside) Rs. 15,000/-

*GST 5% extra.

SPONSORSHIP OPPORTUNITY

Sponsors are assured of full visibility with printing of their names on proceedings and banners of the Conference and will have the privilege of distribution of their product's pamphlets/catalogues during the Conference. Sponsors will also have the privilege of sending delegates exempted from payment of registration fee as indicated hereunder:

S. No.	Category	Fee in Rs.	Privileges
1.	Platinum Sponsorship	3,00,000	<ul style="list-style-type: none">• Display of Logo on Main banner & other publicity material• Free Delegates in the Conference (10 Nos.)• Free editorial in the proceedings (2 pages)• Advertisement in Proceedings• Table space for display of services at the venue
2.	Gold Sponsorship	2,00,000	<ul style="list-style-type: none">• Display of Logo on Main banner & other publicity material• Free Delegates in the Conference (06 Nos.)• Free editorial in the proceedings (1 page)• Advertisement in Proceedings• Table space for display of services at the venue
3.	Silver Sponsorship	1,00,000	<ul style="list-style-type: none">• Display of Logo on Main banner & other publicity material• Free Delegates in the Conference (03 Nos.)• Advertisement in side Proceedings

Address for Correspondence

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V.K. Kanjlia



P.P. Wahi



Vishan Dutt

International Conference

Energy Storage

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REGISTRATION FORM

(To be filled in block letters preferably)

Delegate _____
(Surname) (First Name)

Designation _____

Name of Organisation _____

Mailing Address _____

City _____

State _____ PIN _____

Phone _____ Mobile _____ Fax _____

E-mail _____

Dated _____ Signature _____

CONFERENCE SECRETARIAT

Shri V.K. Kanjlia

Secretary

Central Board of Irrigation and Power

Malcha Marg, Chanakyapuri, New Delhi 110 021, India

Tel : 91-11-26115984/26116567 Fax: 91-11-26116347

Registration Form, duly filled in, is to be mailed to the following address:

Contact Person : Shri Vishan Dutt, Chief Manager (Tech.), M: 9811431554

Email : vishandutt@cbip.org; vishan.dutt.cbip@gmail.com Web-site: <http://www.cbip.org>

Note:

- Photocopies of the registration form can be used for additional requirements, if any.
- Spot registration facilities will also be available, provided the prior information is received.