



**CIGRE-AORC Technical Meeting 2018**

*International Conference*

# **Global Energy Transition – Issues and Challenges**

**24 – 25 May 2018**

**Venue : Hotel Lemon Tree, Gangtok, Sikkim, INDIA**

*Jointly Organised by*



CIGRE-AORC



पावरग्रिड  
POWERGRID



CIGRE India



New Delhi  
Central Board of  
Irrigation & Power

*Supported by*



SPE, India



Afro-Asian Regional Organisations





**I.S. Jha**  
President, CIGRE-India  
& CMD, POWERGRID

## INVITATION

CIGRE India is honoured to host the CIGRE-AORC Technical Meeting 2018, International Conference on “Global Energy Transition – Issues and Challenges” on 24 – 25 May 2018, Hotel Lemon Tree, Gangtok, Sikkim.

We have pleasure in extending a cordial invitation to individuals and institutions concerned for participating in the above event.

We will be eagerly waiting and look forward to welcoming you in Gangtok and hope your stay and experience will be a memorable one.



**Subir Sen**  
Chairman, CIGRE-AORC  
& ED, POWERGRID

## ANNOUNCEMENT, DATE & VENUE

CIGRE-India in its capacity as present Chair for CIGRE AORC & National Committee for CIGRE, POWERGRID and Central Board of Irrigation and Power are Jointly organizing CIGRE-AORC Technical Meeting 2018 -International Conference on “Global Energy Transition – Issues and Challenges” on **24 – 25 May 2018, Hotel Lemon Tree, Gangtok, Sikkim, India**

## ABOUT CIGRE AND ORGANISERS

CIGRE (International Council on Large Electric System) is a permanent, non-governmental and non-profit International Association. Based in France, CIGRE was founded in 1921. CIGRE is an international organization dedicated to the development of the power supply sector through the Identification and the development of solutions to industry issues. It has about 14,000 professionals as its members in around 100 countries engaged in power system engineering for generation, transmission and distribution.

**CIGRE - INDIA** is the National Committee of CIGRE and is dedicatedly perusing the objective of CIGRE through 16 National Study Committees. CIGRE-India, in the recent past has effectively pushed up the activities, with the result the membership has increased from 250 in 2015 to 768 in 2017.

**Power Grid Corporation of India Limited (POWERGRID)**, is an Indian state-owned electric utility company. POWERGRID transmits about 50% of the total power generated in India on its transmission network. It is a “Navaratna” Central Public Sector Enterprise and is India’s largest Electric Power Transmission Utility.

**CIGRE-AORC** is a forum for sharing experience and knowledge regarding pertinent technical issues particularly those affecting power systems in the Asia-Oceania region. The countries from Asia Oceania region associated with CIGRE-AORC forum are : Australia; China; Cambodia; Gulf Cooperative Council; Hong Kong; India; Indonesia; Iran; Jordan; Japan; Korea; Malaysia; New Zealand; Taiwan; Thailand, etc. The theme chosen for CIGRE-AORC Technical Meeting 2018 in India is “Global Energy Transition Issues and Challenges”.

About the subject: To be able to live sustainably, we need to drastically reduce our fossil fuel consumption worldwide by improving end-use efficiency, conversion efficiency and by introducing renewable resources. To stay ahead of depletion of fossil resource, we need a timely transition to renewable energy sources. The Issues relating to energy are among the most important and difficult challenges confronting the world today. Providing sufficient energy to meet the requirements of a growing world population with rising living standards will require major advances in energy supply and efficiency. Doing this while mitigating the risks of climate disruption will be an even more challenging undertaking. It will require a significant shift in the historic pattern of fossil-fuel use and a major transformation of the global energy system. Especially in the developing countries, the choice of technology, policy, and economic levers that will be used to transform and expand their energy systems will have profound implications for their growth, international competitiveness, and economic security and prosperity. Since the bulk of that additional capacity will be required in the developing world, how this challenge might be addressed is a huge and complicated dilemma for sustainable development. The transition to a renewable energy system, however, will be a subject of great challenge because of problems of intermittency, the location of renewable resources relative to major population centers, and the massive scale of the prospective shift. The various issues connected with the subject are going to be addressed during the above conference.

## TOPICS

Papers are invited on any topic pertaining to the aim and scope of the conference that includes, but not limited to, the following:

- Renewable Energy – Large-scale adoption of affordable PV-systems in a number of countries
- Rapid development of wind technology; development of large-scale wind farms
- Variable Renewable Energy Integration: Balancing for Stability
- New storage systems for supporting renewables
- Smart Grid : For electricity in supply emerging power scenario
- Flexible Transmission : Emerging Technology
- Reaching the last Mile: Distribution System Infrastructure
- Electrification of transport
- Power Quality Issues in Distribution Grid
- Electricity Market : Power Trading & Ancillary Services
- Cyber Security amidst digitization of power system

## CALL FOR PAPERS

Those who desire to participate and presentations papers /case studies on the above subjects are requested to submit the full paper to reach CBIP office latest by 5th May, 2018.

The Member Countries of CIGRE-AORC are requested to participate and submit at least one paper each for the presentation in the conference.

## OFFICIAL LANGUAGE

The official language of the conference is English.

## WHO SHOULD ATTEND

The forum is open for everyone involved in the power industry e.g. Central /State /Private /IPP Utilities / Contractors / Manufacturers /Energy Planners, consultants/ Research organizations, laboratories, standardization bodies and academic institutes.

## REGISTRATION FEE

Those willing to participate and present papers in the technical conference have to register by filling up the registration form and e-mail back to us. Registration is only complete once the payment of fee is fully made.

**The Chair & Secretary from CIGRE-AORC member countries are exempted from payment of Registration fee. All other participants to register for the conference.**

The registration fee payable by the delegates, including authors of papers, for participation in the conference is as follows:

S. N.	Event	Fee payable by			
		SAARC countries in INR		Others in US Dollar	
		Participant	Companion	Participant	Companion
1	International Conference	15,000/-	5,000/-	300	100

### Important:

- 18% GST will be extra for the payment in INR. (GST No. 07AAAJC0237F1ZU).
- 10% discount in registration fee to CBIP & CIGRE - India members.
- Companions are immediate relative or one normally residing with the participant
- However the spot registration is available to a limited extent, it is advisable to register well in advance.
- The conference is non-residential and the timing will be 10.00 AM to 5.00 PM on both the days. The registration will start at 9.00 AM on day one at the venue of the conference.
- The registration fee covers the cost of registration kit, Conference proceedings, lunches and tea in-between technical sessions. The participants will have to make their own arrangements for travel, boarding and lodging.



## SPONSORSHIP OPPORTUNITY

Scope exists for organizations to be the sponsor, gain publicity through networking with the industry's leading Government Officials, Sr. level delegates and experts besides following privileges:

<b>Platinum Sponsorship</b> <b>INR 3,00,000</b>	<b>Gold Sponsorship</b> <b>INR 2,00,000</b>	<b>Silver Sponsorship</b> <b>INR 1,00,000</b>
<ul style="list-style-type: none"><li>• 5 delegate passes</li><li>• Company logo on Backdrop</li><li>• Company logo on Cover page of Proceedings Volume</li><li>• Advertisement (Special Position) in the Proceedings Volume</li><li>• Circulation of Company Literature</li><li>• Exhibit Space</li><li>• Announcement – Thanking sponsor</li><li>• Advertisement in the Key Journal Published covering report of the event</li><li>• Speaking Opportunity</li></ul>	<ul style="list-style-type: none"><li>• 3 delegate passes</li><li>• Company logo on Backdrop</li><li>• Company logo on Cover page of Proceedings Volume</li><li>• Advertisement (Special Position) in the Proceedings Volume</li><li>• Circulation of Company Literature</li><li>• Exhibit Space</li><li>• Announcement – Thanking sponsor</li></ul>	<ul style="list-style-type: none"><li>• 1 delegate pass</li><li>• Company logo on Backdrop</li><li>• Company logo on Cover page of Proceedings Volume</li><li>• Circulation of Company Literature</li></ul>

## CALL FOR ADVERTISEMENTS

A limited space for insertion of color advertisements in the Conference proceedings is available at the following rates:

<b>Position</b>	<b>Charges for Colour Advertisements</b>	
	<b>SAARC countries (Indian Rs.)</b>	<b>Other countries (US\$)</b>
Back cover page	1,00,000	1600
Second or third cover page	50,000	800
Full page	30,000	500

## PAYMENTS

All payments should be made by cheque at par/Demand Draft drawn in favour of “**Central Board of Irrigation and Power**”, payable at New Delhi OR by transfer the amount to HDFC Bank, Address: 209-214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi 110001; Saving Bank Account No. : 00031110004411; Swift Code: HDFCINBBDEL; IFSC: HDFC 0000003; MICR Code: 110240001. **(GST No. 07AAAJC0237F1ZU)**.

## ACCOMMODATION

The official venue hotel for the Conference is Hotel Lemon Tree, Gangtok, Sikkim. Since month of May is peak season for tourist in Sikkim, it is advisable to book hotel accommodation well in advance. For the convenience of the participants limited numbers of rooms @ INR 9500/ 150 USD (approximately)+ Tax, have been blocked in the venue hotel to secure accommodation for the delegates attending the conference. The rooms can be booked by sending the requirement directly to the following contact person by 15th April 2018, after which the rooms will be subject to availability:

**Mr. Santosh Kumar Singh**, Director of Sales, Lemon Tree Hotels

T + 91 11 46050101; D +91 11 66588541; Mobile no. +91 9717564343; Email – dos3.ttdl@lemontreehotels.com

Participants may also contact the following for accommodation in Hotel MayFair, Gangtok, Sikkim:

**Mr. Punyanand Thakur**, AGM-sales, (Mobile +91 9268569004, email – punyanand.thakur@mayfairhotels.com

## HOW TO REACH SIKKIM

Almost All the modes of transportations are available to visit Sikkim. This Paradise on Earth is well connected by airways, railways and roadways. In spite of being a hilly state, transportation of Sikkim is comfortable and more frequent to enjoy the ride on the world's most beautiful valley.

**Airways** : The airport located nearest to Sikkim is Bagdogra Airport of West Bengal which is only 124 km away from Gangtok. India's national carrier, Indian Airlines including almost all other domestic airlines such as Jet Airlines, Air Deccan run regular flights from the important cities of India such as Kolkata, Delhi etc. From Bagdogra you can catch taxis to reach almost all the important tourist destinations located in both South and West Sikkim. Bagdogra is also connected with Gangtok by daily helicopter service operated by Sikkim Tourism development Corporation and it will take only 20 minutes to reach Gangtok from Bagdogra. However the helicopter service is controlled by Govt. and is very rarely available.

**Railways :** New Jalpaiguri and Siliguri are the two rail stations nearest to Sikkim located in West Bengal. NJP is 125 km and Siliguri is 114 km from Gangtok and is well connected to all the major cities. Ticket reservation facilities are available from Sikkim Nationalized Transport office in all working days

**Roadways :** The lifeline of Sikkim, which is National Highway 31A connects Gangtok with Siliguri and this picturesque highway runs through the lush green forests along the bank of river Teesta on one side and sky touching mountain ranges of Eastern Himalaya on other side. This unique ride of almost two hours will give you the opportunity to enjoy the valley carpeted with numerous wild flowers. Regular bus service operated by S.N.T. and adequate number of private buses, jeeps and taxis are available from morning to evening at reasonable rate and you can have a very comfortable journey. From Siliguri you can catch jeeps and taxis to reach almost all the important tourist destinations located in both South and West Sikkim. You can also hire taxis and jeeps to travel to your destination of choice at reasonable rate. Most of the reputed destinations of Sikkim are interlinked by motorable all seasons roads.

## INDIA - THE HOST COUNTRY

India – the very name conjures images of vibrant colors, mysticism, royalty; an amalgam of religions, a kaleidoscope of art and culture, all of which find expression in the beautiful temples, sculptures and monuments. India's ancient and diverse culture, sweeping back at least 5000 years, with successive waves of migration absorbed into the fabric of Indian life, has enriched it time and again to make a multi-cultural nation with a rich diversity of languages, customs, cuisines, religions, literature and arts. Within this kaleidoscope of immense variety there is a thread of continuity that has determined Indian civilization and social structure. India, it is often said, is not a country but a continent. From north to south and east to west, the people are different, the languages are different, and the country is different. There are few countries on earth with the enormous variety that India has to offer.

## SIKKIM - THE HOST CITY

Sikkim is a state in Northeast India. It borders the Autonomous Region of Tibet in its north and east, Bhutan in its east, Nepal in its west and the Indian state of West Bengal in its south. Sikkim is also located close to the Siliguri Corridor near Bangladesh. Sikkim is the least populous and second smallest among the Indian states. A part of the Eastern Himalaya, Sikkim is notable for its biodiversity, including alpine and subtropical climates, as well as being a host to Kanchenjunga, the highest peak in India and third highest on Earth. Sikkim's capital and largest city is Gangtok. Almost 35% of the state is covered by the Khangchendzonga National Park. Modern Sikkim is a multiethnic and multilingual Indian state. Sikkim has 11 official Languages: Nepali, Sikkimese, Lepcha, Tamang, Limbu, Newari, Rai, Gurung, Magar, Sunwar and English. English is taught in schools and used in government documents. The predominant religions are Hinduism and Vajrayana Buddhism. Sikkim's economy is largely dependent on agriculture and tourism. It is among the fastest-growing state of India. Sikkim accounts for the largest share of cardamom production in India, and is the world's second largest producer of the spice after Guatemala. Sikkim achieved its ambition to convert its agriculture to fully organic over the interval 2003 to 2016, the first state in India to achieve this distinction.

It is also among India's most environmentally conscious states, having banned plastic water bottles and Styrofoam products. The places to see in Sikkim are Rumtek Monastery; Nathu La; Khecheopalri Lake; Hanuman Tok; Tashi View Point etc.

## ADDRESS FOR CORRESPONDANCE

**V.K. Kanjlia, Secretary,** Central Board of Irrigation & Power, Malcha Marg, Chanakyapuri, New Delhi – 110021 (Phone: 011 26115984/1294/26116567; Fax: 011 2611 6347 E-mail: cbip@cbip.org)

**P.P. Wahi, Secretary,** CIGRE-AORC & Director, Central Board of Irrigation & Power, Malcha Marg, Chanakyapuri, New Delhi - 110021

**Contact Person:** Vishan Dutt, Chief Manager -Tech., CIGRE-India, M: 9811431554; vishandutt@cbip.org





## CIGRE-AORC Technical Meeting 2018

### *International Conference* **Global Energy Transition - Issues and Challenges**

**24 – 25 May 2018**

**Venue : Hotel Lemon Tree, Gangtok, Sikkim, INDIA**

### **REGISTRATION FORM**

(to be send duly filled in to CIGRE- India : Email : vishandutt@cbip.org : Fax : 91-011-26116347)

1. Name : \_\_\_\_\_
2. Position : \_\_\_\_\_
3. Organization : \_\_\_\_\_
4. Address : \_\_\_\_\_  
\_\_\_\_\_
5. Phone : \_\_\_\_\_ Fax No. \_\_\_\_\_  
E-Mail : \_\_\_\_\_

Accompanying person if any : .....

(Accompanying person is immediate relative is not expected to attend technical session for the conference)

**For International participants and their companion, additional details are required apart from the above information:**

Passport No.	Date & Place of Issue	Date of expiry of passport	Name as mentioned on the passport	Date of Birth	Arrival date, Time & flight number	Departure date, Time & flight number

#### **Details/ Amount of Registration fee Paid:**

All payments should be made by cheque at par/Demand Draft drawn in favour of “Central Board of Irrigation and Power”, payable at New Delhi

OR

by transfer the amount to HDFC Bank, Address: 209-214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi 110001; Saving Bank Account No. : 00031110004411; Swift Code: HDFCINBBDEL; IFSC: HDFC 0000003; MICR Code: 110240001. (GST No. 07AAAJC0237F1ZU).

