

CONFERENCE • EXPO • AWARDS

# SO<sub>x</sub> NO<sub>x</sub>

22 & 23 December 2016

2016



Taj Vivanta  
New Delhi



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Mission Energy  
FOUNDATION  
(A Not-for-Profit Organisation)



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## Challenging Environment Norms in India

India, reversing its earlier stand to go slow on environmental initiatives involving additional costs, had announced its commitment at COP21 global climate talks in Paris in November 2015, pledging to improve the carbon emissions intensity of its gross domestic product (GDP) by 33-35 per cent below 2005 levels by 2030.

However, the Indian government has started initiatives in this direction much ahead of this announcement. Ministry of Environment & Forest and Climate Change, government of India, has stipulated stringent norms for power plants installed in the country vide Gazette Notification dt. 7th Dec 2015. With this in place, power plants will require to consume less water, and lower emissions for Particulate Matter (PM), Sulphur Dioxide (SO<sub>x</sub>), Oxides of Nitrogen (NO<sub>x</sub>) and Mercury (Hg).

Thermal power generation process will become more complex owing to the need of addressing climate change issues and mitigating stricter emission norms in future, at the same time tremendous pressure is on the generator to make the electricity affordable to all and to also remain competitive in the market.

In this new emerging scenario, there is a bigger responsibility to be shared by all those involved in the power plant design & engineering, operation & maintenance, renovation & modernization, erection & commissioning, environment management, commercial management, technology provider, product and solution providers, policy maker, regulators and others. These professionals have to work with new set of different challenges and constraints which are known or lesser known at this stage.

With the above in mind, Mission Energy Foundation has chosen to address the various issues and challenges and gather industry stakeholders during **SO<sub>x</sub> NO<sub>x</sub> 2016** the first **Conference – Expo – Awards** to be held on **22 & 23 December 2016 at Hotel Taj Vivanta – New Delhi.**

## The Challenges Ahead...

- Implementation of the new norms in existing TPPs may require more for design and engineering, approvals, arrangement of funds, tendering and erection, testing & commissioning.
- Approx 80000 MW of total installed capacity of less than 500 MW units will be affected due to non-availability of space.
- Expected delay in new TPPs due to the new norms as units in advanced stage of installation, the environmental control systems would have to be considered only as retrofits
- Implementation will affect power supply to grid as modifications/retrofits would require long shut downs of units with financial hardship to TPPs.
- Units operating at very low PLF of 10-20 % or have seasonal plant operation cannot recover the huge investment made, in their remaining life span without a steep rise in power tariff.
- Holding back commissioning of the units on account of Environmental Standards may not be advisable as it could lead to contractual issues with equipment suppliers, establishment of guarantees etc.
- Strategic plans would have to be taken up by other organization/ministries for mining of limestone, transportation of gypsum of requisite quality and handling ammonia & environmental approval thereon.
- Steep rise in tariff for 15-20 years old plants, as it would not be possible to recover the investment in their remaining life span.
- CAPEX and OPEX would have to be allowed by the regulators in tariff which ultimately would burden the consumers as power tariff may increase roughly by 45 to 55 paise/kWh.

## Who Should Attend?

All those involved in Thermal Power Generation, power plant design & engineering, operation & maintenance, renovation & modernization, erection & commissioning, environment management, commercial management, technology provider, product and solution providers, policy makers, regulators and others.



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Our aim is to deliver you an event that exceeds your expectations, thus becoming an integrated part of your annual marketing program.

Sponsoring this **SO<sub>x</sub>NO<sub>x</sub> 2016** will make your company stand out as a leader in this burgeoning industry and will leave a strong impression of your brand in key decision makers minds. Sponsors have an incredible amount of presence and it will not only give your company optimum exposure but also the opportunity for delegates to meet you and your executives to find out more about your role and business opportunities in the sector.

- Gain **PUBLICITY** with our advertising and promotional campaigns
- Obtain **DIRECT ACCESS** to potential clients during and after with our meticulously prepared confidential delegate list
- Receive a **KEY SPEAKING POSITION** to address an audience of top executives and decision makers from the industry
- Create **PERMANENT REMINDERS** of your product or services in conference documentation
- Profile yourself as **INDUSTRIAL LEADER**, as your corporate logo and profile will be featured prominently in event marketing collaterals
- **NETWORKING** with the industries leading Government Officials, Senior Level Delegates and Experts
- Achieve **GREATER EXPOSURE** and **BRAND BUILDING** through our partners and much more

## For Details Contact:

Shri. Ashwinkumar Khatri, Director General  
dg@missionenergy.org  
+919833951556

## Sponsor Now!

### Terawatt Sponsor

**645000**

INR + Govt Taxes

7 Delegate Passes

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Circulation of Company Literature

Announcements - Thanking Sponsors

Exhibit Space - (6x2 Mtr.)

Speaking Opportunity

### Gigawatt Sponsor

**445000**

INR + Govt Taxes

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Company Logo on Backdrop

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Exhibit Space - (3x2 Mtr.)

### Megawatt Sponsor

**345000**

INR + Govt Taxes

3 Delegate Passes

Company Logo on Summit Brochure

Company Logo on Backdrop

### Kilowatt Sponsor

**245000**

INR + Govt Taxes

Company Logo on Summit Brochure

Company Logo on Backdrop

CONFERENCE • EXPO • AWARDS

# SO<sub>x</sub> NO<sub>x</sub>

22 & 23 December 2016

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INR 75000 + Govt. Taxes / Stall

## For Details Contact:

Shri. Sanjay Dua  
sanjay@missionenergy.org / +919820814644



## EXHIBITION

Exhibiting at **SO<sub>x</sub> NO<sub>x</sub> 2016** is a cost effective and invaluable tool to help deliver your technology, product, equipment and services to senior decision makers of your core target market and will help grow your business in following ways

**ENFORCE** your **BRAND** and promote your services to generate and customers bases interest

Meet senior level decision makers to **EASE** of doing **BUSINESS**

Make new contacts and **BUILD** lasting **RELATIONSHIPS**

**DISPLAY** your **CAPABILITIES** at an international platform to those developers, utilities and manufacturers who need your project financing services or project development technology.

Take advantage of a central point of contact from which to **DEVELOP BUSINESS** and raise your profile in this growing sector.

**STRENGTHEN** existing **BUSINESS PARTINERSHIPS** and create profitable new leads as you interact with your core customer base.

Throughout during the conference days, there will be a select number of leading solution providers who will discuss and advise on their latest products, solutions and services to a targeted number of senior level decision makers and technology-including regulatory affairs, financing structures and many more... Make sure you stay ahead of the competition and **SECURE YOUR PLACE NOW!**

You will benefit from multiple opportunities to talk with the clients and prospects you want to do business with and kick start your sales. All under one roof and all in just two days - saving you both time and money!

As exhibition space is strictly limited and is already booking fast! For booking of exhibition space, contact our representative right now!

## Visitor Profile

Participants will benefit from the high quality information exchange and networking opportunities. The expo will be marked by the presence of key decision makers and key players from the government and corporate world in India and abroad:

- Diplomats and senior government officials including policy makers and regulatory authorities
- Senior industry leaders from power, coal, chemical, petroleum and many other sectors
- Senior management teams from renowned private and public sector companies
- Entrepreneurs, technologists, operators and service providers
- Energy associates, producers and consumers
- International suppliers and trade organizations
- Equipment suppliers and service Companies
- Environmentalists, research and development scientists
- Investment banks & financial institutions



## Exhibitors Entitles to Receive

- 2 Delegate Passes for Conference
- Company Logo on Summit Brochure
- Company Logo on Backdrop
- Modular Shell Stand Structure
- Two Chairs & One Table
- Fascia with Company Name
- Power Socket for Power Supply
- Built Up Area (3x2 Sq. Mtr.)



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## AWARDS

The **Environment Excellence Awards - 2016** will be presented to power producing units demonstrating highest level of commitment to Environment Management covering Thermal Power Plants and services sector who demonstrate highest level of commitment and best practice. The awards aim to recognize exemplary operations, systems and the evidence of their impact to business vitality. Mission Energy Foundation awards serve as a catalyst to understanding the intrinsic value of Environment Management in business excellence and sustainability.

Mission Energy Foundation invites nominations from companies and their units having strong concern and commitment for Environment Management and are willing to improve their own performance.

The Environment Excellence Award will be introduced at **SO<sub>x</sub> NO<sub>x</sub> 2016** conference, honouring innovative developments and solutions for better excellence and sustainability in the thermal power sector in the years to come ahead...

The Winners of Environment Excellence Awards 2016 shall be honoured during the second day of the conference SO<sub>x</sub> NO<sub>x</sub> 2016 i.e., 23 December 2016.

### ADVANTAGES

- Reflects your commitment to Environment Protection.
- Enhances your corporate status and image.
- Boosts morale of concerned employees and stakeholders.
- Motivates management and staff of the organization to excel.
- Develops your clientele.

### OBJECTIVES

- Encourage & motivate to adopt best practices and become role models for others to emulate.
- Encourage implementation of strategies for improvement in operations standards.

### ELIGIBILITY

All Large, Medium, Small Scale Thermal Power Plants / Service Sector Companies / Organizations and their units; Academic Institutions are eligible for participation in the award.

## Award Categories...



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## Award Nomination Fees

INR 22500 + Govt Taxes

Per Nomination  
Per Selected  
Category

### Award Participation Process

#### Submit Nomination

Apply Online and make the payment.

Submit completed application along with relevant information and we shall contact for softcopy of documents.

If interested in applying for more than one unit / projects of same company or more than one location, separate request for application and fee should be submitted for each nomination.

#### Selection Process

Evaluation of nominations for Environment Excellence Awards is an intensive process. Nominations are evaluated by experts from Government, Academia and Industry.

Preliminary evaluation of shortlisted nominations.

Mandatory power point presentation with original documents by all short-listed nominee company/ units in presence of Jury Members constituted by Mission Energy Foundation.

Site visit of short-listed companies/units (if required).

#### Award Presentation

Environment Excellence Awards 2016 will be presented during SO<sub>x</sub> NO<sub>x</sub> conference 2016 scheduled on 23 December 2016 Hotel Taj Vivanta - New Delhi.

#### Key Dates to REMEMBER...

<b>OCT</b> <b>10</b>	09:30 Hrs Nomination Opens	<b>NOV</b> <b>28</b>	1700 Hrs Nomination Closes	<b>DEC</b> <b>05</b>	1100 Hrs Winners Informed
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### Payment Options

**Cheque / Demand Draft**  
drawn in favour of 'Mission Energy Foundation' payable in Mumbai.

**Electronic Fund Transfer :**  
For details, visit  
<https://www.payumoney.com/webfronts/#!/index/MissionEnergyFoundation>

**Credit Card Payment :**  
For details, visit  
[https://soxnox.missionenergy.org/PaymentOptions\\_Kotak](https://soxnox.missionenergy.org/PaymentOptions_Kotak)

# CONFERENCE AGENDA

## DAY ONE: 22 DECEMBER 2016

### 10:00 – 11:00 Inaugural Function

Shri A K Mehta, Jt. Secretary – MOEF  
Dr. Dipankar Saha, Addl. Director & Head Air Lab - CPCB  
Shri Jitendra Kumar, Adviser - NITI Aayog  
Dr. Srikanta K Panigrahi, DG - Carbon Minus India

### 11:00 – 13:00 (Panel Discussion) Can Environment Damages be Limited V/s Does Solutions Exist

Chair: Dr. Srikanta K Panigrahi, DG - Carbon Minus India

Shri A K Sinha, ED Engineering - NTPC  
Shri Bijan Mishra, Sr. VP & Head Environment - Reliance Power  
Shri Prashant Kokil, Head (C-SHE) - TATA Power  
Shri Ashok Ganesan, Managing Director - GE

### 14:00 – 18:00 Control of Sulphur Dioxide (SO<sub>x</sub>) & PMI

- Technology & Technical Challenges, suitability under Indian conditions.
- Space Requirement for equipment
- Transportation, availability & Storage of Lime Stone/ Ammonia.
- Cost Implication, O&M Cost / Capex / Opex
- Tariff & Financing

#### Invited Speakers:

Shri Sandeep Chakraborty, Process Eng. Mngr. - GE  
Shri G Srikant - Thermax Babcock & Wilcox  
Shri Prasad Rao, President - Abhitech Energycon Limited  
Shri P K Maji, Jt. GM / D Verma, AGM - MECON Limited  
Shri Venkatesh Rao, Sr. Commercial Proposals Manager - GE  
Shri R Singaravelu, AGM-BM - Hamon Research-Cotrell

## DAY TWO: 23 DECEMBER 2016

### 09:30 – 11:00 Control of Oxides of Nitrogen (NO<sub>x</sub>)

- Technology & Technical Challenges, suitability under Indian conditions.
- Space Requirement for equipment
- Transportation, availability & Storage of Lime Stone/ Ammonia.
- Cost Implication, O&M Cost / Capex / Opex
- Tariff & Financing

#### Invited Speakers:

Shri Sunil Chauhan, Engineering Manager - GE  
Shri Sachin Panwar, BDM - Haldor Topsoe  
Shri Virendra Patil - Thermax Babcock & Wilcox  
Shri K Viswanathan, Head-Engineering - ISGEC

### 11:30 – 13:00 Water Consumption

- Technologies and Technical challenges in retrofitting
- Designer's/Manufacturers perspectives on retrofitting of cooling tower
- Space Requirement - Challenges & constraints
- Operational constrains (Additional usage of water, Power, deterioration in heat rate etc.)

#### Invited Speakers:

Shri Rajneesh Chopra, Global Head, BD - V A Tech Wabag Ltd  
Shri Himanshu Gupta, Sales Director - GE  
Shri Rabinder Kant Sikri, CEO - Energy & Energy Consultants

### 14:00 - 15:00 Case Studies & Regulatory Challenges

#### Invited Speakers:

Shri Tanmay Maitra, Vice President-Project - Birla Corp Ltd  
Shri MK Parameswaran, Station Head - IL&FS

### 15:30 – 16:30 Environment Excellence Awards

The Environment Excellence Awards will be introduced at SO<sub>x</sub> NO<sub>x</sub> 2016 to thermal power producing units and its associated industry demonstrating highest level of commitment to Environment Management covering Thermal Power Plants and services sector who demonstrate highest level of commitment and best practices in the years to come ahead...

#### Guest's of Honor:

Shri Annasaheb Patil, Convener - BJP Energy Cell  
Dr. M P Narayanan, Former CMD - CIL & NLC

**VENUE : Vivanta by Taj**  
Sector 21, Metro Station Complex, Dwarka  
New Delhi, India

#### Contacts

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<http://vivantabytaj.com>

#### For room reservations contact

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**Taj Vivanta  
New Delhi**

## Organiser



**Mission Energy**  
FOUNDATION  
(A Not-for-Profit Organisation)

## About Us

**Mission Energy Foundation** is a persistent, private, **not-for-profit** endeavour based in Mumbai, India.

We are a micro-enterprise initiative that strives to spread knowledge in the globalising energy sector. We educate and spread technology awareness through ongoing contacts and discussions with the public and industry concerning what the future of the growing energy sector should be.

**The beginning:** A single man army with its mission to build platforms of discussion, exchange knowledge among industry professionals on core issues pertaining to growing energy sector.

**Today:** A human asset working together as one endeavour that expertise in organising and delivering successful international summits involving who's who from Entrepreneurs to Academicians to Government Authorities to Technology Providers to Consultants to Industry Professionals from the growing energy sector globally.

**Mission Energy Foundation (A not-for-profit Organisation)**

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