FOREWORD

Today, the establishment of new power plants in India is strongly dependent on the import of highly volatile fossil fuels. Sustainable renewable energy is becoming an important link in industrialization and development. India is finding ways past energy related growth obstacles through versatile and efficient utilization of its abundant renewable energy resources. Energy security and environmental considerations are the two big challenges the world is facing today. India is not exceptional to these challenges but the difference is that our developmental goals are more pressing compared to the global environmental considerations and the fact that our dependence on coal in meeting our energy requirements would continue in near future also makes it further challenging.

The total installed electricity capacity in India at the end of June 2013 was 2,25,795 MW, of which 59% is coal based. Coal will continue to dominate the additional capacity to be created in the next two decades. India needs to master the coal-gasification technology so as to boost both energy efficiency and attendant security.

For over years now, Mission Energy Foundation with its expertise in organising and delivering successful international summits on the aforesaid subject & in aegis of Ministry of Coal, Fertilizer, Power & Environment & Forest; are proud to announce our 5th annual international summit COALGAS: 2014 scheduled for 9-10-11 April, 2014 at NDCC Convention Centre, NDMC Complex, New Delhi.

COALGAS: 2014, will comprise three days of formal presentations, interactive roundtable discussions and excellent networking opportunities, providing an ideal setting to convene with your peers to discuss both current operational & future planned gasification plants, end product markets, potential barriers & support policies as well as project economics & finance.

Who will attend?

Leading power generation companies, petrochemical plant operators and the oil refining industry including: managers and directors of gasification, biomass or clean coal technology, power generation, R&D and new technologies, renewable strategy, sustainable technologies, environment and CO2 managers, CTOs, COOs as well as business development executives from technical service providers, consultants and regulators.

To Book Your Seat Contact secretariat@missionenergy.org
Did you Know Coal Gasification is a Commercially Proven Process?

While coal gasification is a commercially proven process a number of questions still remain:

- What is the investment needed for a coal gasification project?
- How do you successfully finance a high upfront cost coal gasification project?
- Where are the opportunities to invest in Asia?
- What is the market for synthetic gas fired power generation and feedstock for fertilizer and chemical industries?
- What underground coal gasification (UCG) blocks are available for development?

Top Reasons to Attend COALGAS: 2014

- India's Fifth Coal Gasification Conference
- Case Studies & Practical Applications for Coal Gasification
- Meet with Synthetic Gas Users Including Power, Fertilizer & Chemical Companies
- Showcase of Coal Gasification Technology Advancements
- Three Days of Value Packed Interactive Sessions to Enhance your Learning & Business Opportunities

Register for COALGAS: 2014 today and unlock the keys to India’s coal gasification future!

Our Past Successful Events

- **COALGAS 2013**
  - 11th & 12th February 2013
  - NDCC II, Convention Centre, New Delhi

- **COALGAS 2012**
  - Summit Theme: Solution for Sustainable Environment & Energy Supply
  - 27th - 28th February 2012
  - NDCC II, Convention Centre, NDMC Complex, New Delhi, India

- **COALGAS 2011**
  - Summit Theme: Vision 2020: National Option for Clean, Green and Sustainable Energy
  - 14 - 15 February 2011, NDCC-II Convention Centre, New Delhi, India
4:00-4:30 pm  Inaugural function

**Chief Guest’s Welcome Address**
Shri Sriprakash Jaiswal, Honourable Union Minister of Coal - GOI
Shri Ravi Uppal, MD & CEO - Jindal Steel & Power Ltd.

**Special Guest’s Welcome Address**
Shri S K Srivastava, Secretary - Ministry of Coal
Shri P K Sinha, Secretary - Ministry of Power
Shri V Rajagopalan, Secretary - Ministry of Environment & Forest
Shri Shaktikanta Das, Secretary - Ministry of Chemical & Fertilizers
Shri Narsing Rao, CMD - Coal India
Shri Dr A B Akolkar, Member Secretary - CPCB

**Keynote Addresses**
Ms Alison Kerester, Executive Director - GTC
Shri V R Sharma, Dy MD - JSPL

**Vote of Thanks**
Shri Ashwinkumar, DG - Mission Energy Foundation

4:30-5:30 Session Title: Coal Gasification Market Outlook
**Session Chair:** Shri S K Srivastava, Secretary - Ministry of Coal

4:30 State of the Global Gasification Industry
Ms Alison Kerester, Executive Director - GTC

5:00 Coal Gasification – Indian Scenario
UHDE India

5:30 Clean Coal Technologies with Reference to Gasification and Co-Gasification of Coal
Shri D K Sharma, Prof (centre for Energy Studies) - IIT Delhi
**10th April 2014**

10:00-11:30  Session Title: Opportunities for Coal Gasification  
Session Chair: Shri D N Prasad, Advisor Projects - MoC

10:00  Success Story of India's First Coal Gasification Project - Angul Plant  
Shri Naveen Ahlawat, Head - SCM and Marketing - JSPL

10:30  Fostering Coal Gasification towards Diversifying the Global Energy Mix  
Ms Ranali Perera, Petroleum Analyst - Petroleum Resources Development Secretariat Government of Sri Lanka

11:00  CB&E Gas Technology  
Mr Phil Amick, Director-Technology Business Development - CB&I

**TEA BREAK**

12:00-13:00  Panel Discussion: Gasification Growth to Unlock the Business Potential  
Moderator: Shri Thomas Mathew, President – PTA & Gasification - RIL

- Ms Alison Kerester, CEO - GTC
- Shri Anirban Kundu, Executive Director - RCF
- Smt Kalpana Jain, Sr Director - Deloitte
- Shri Naveen Ahlawat, Head-SCM and Marketing - JSPL

**LUNCH BREAK**

Session Title: Gasification - Application & Product  
Session Chair: Dr M P Narayanan, Former CMD - Coal India Ltd

14:30  The Lurgi Gasification Island – Value Added Products  
Dr Siddhartha Mukherjee, Director – Technology - Air Liquide Global E&c Solutions

15:00  Upgrade By-Product Streams from Coke Oven and Coal Gasification  
Shri Anil Khatri, Regional Licensing Manager - GTC Process Technology (India) Pvt. Ltd.

15:30  Experiences and Advances in Hot Gas Filtration  
Shri Kaustubh P Chitale, Director-Process Systems - Pall Ltd

16:00  L&T's Experience in Gasification Equipment Manufacture  
Shri Sanjay Chakraborty, Head- GP Business Unit, Gasification and Power Plant Equipment Business - Larson & Turbo Heavy Engineering

**TEA BREAK**

Session Title: Gasification - Application & Product  
Session Chair: Mr R K Malhotra, Director R&D - Iocl

17:00  Upgrading High Volatile Coal for Coal Gasification; Along with Recovery of Coal Chemicals  
Shri C S Bhutoria, Advisor Technical - Inglobal Resources  
Shri Zhao Guorun, Chief Representative(India) - Beijing Shenwu Environment & Energy Technology Corp

17:30  Patented Technology Display  
Shri Govind Rao, General Manager - CASE Group

18:00  Coal Gasification and Its Usage for Heat: A Collection of Case Studies  
Mr Varun Kumar, Managing Director - Dev Energy

**11th April 2014**

10:00-11:30  Session Title: Chemical and Fuel Production & Other Activities  
Session Chair: Shri A Kundu, Executive Director (P&P) - RCF

10:00  WSA Technology - Maximising Steam Production by Energy Efficient Acid Gas Recovery  
Shri Varun Giniotra, Business Development Engineer (WSA/SNOX in India - Haldor Topsoe A/S

10:30  Brown Coal is a Better Candidate than Black Coal for Production of Syngas  
Shri T S Venkataraman, Managing Director - Eswin Technologies

11:00  Dynamic Simulation Study of IGCC Power Plant (Impact of Change in Air Flow)  
Shri T V S Nagaraj Kumar, BHEL Corporate R&D - BHEL

**TEA BREAK**

12:00-13:00  Panel Discussion: Commercialization, Expansion, Technology and Industry Overview of Gasification  
Panel Moderator: Ms Alison Kerester, CEO - GTC

- Shri Sri Chandra, Former Advisor - MoCF
- Smt Anuradha Ganesh, Department of Energy Science & Engineering - IIT Mumbai
- Shri Roger Kumar, MD - CASE Group
- Shri Varun Kumar, MD - Dev Energy

**LUNCH BREAK**

14:00-16:00  Session Title: Global Gasification Projects, Technology and Solutions  
Session Chair: Shri Anand Kumar, Director - Petro Tech

14:00  Process Model for Underground Coal Gasification: Development and Applications  
Shri Ganesh A Samdani, Research Scholar - IITB, Mumbai

14:30  Geological Suitability and Laboratory Study for Underground Coal Gasification: Results and Views for Indian Coal Deposits  
Dr V A Mendhe, Principal Scientist - CIMFR, Dhanbad

15:00  Conversion of Coke Oven Gas into Substitute Natural Gas  
Shri Gert B Larsen, Business Development Manager - Haldor Topsoe A/S, Denmark

15:30  Advance & Environment Friendly with Zero Discharge Biomass / Coal Gasification Technology  
Shri Kaushik Gardharia, Director R & D - Radhe Renewable Energy Dev Pvt Ltd

16:30  Recent Advances in Biomass to Liquid Fuel (BtL) through Pyrolysis Route  
Dr Piyali Das, Fellow - TERI
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.

Years further
- In support of Ministry of Coal, Ministry of Power, Ministry of Environment & Forest, Ministry of Urban Development successfully organised an international summit FlyAsh Utilisation 2013
- In support of Ministry of Coal, Ministry of Power, Ministry of Environment & Forest, Ministry of Chemical & Fertilisers successfully organised an international summit COAL GAS: 2013
- In support of Ministry of Coal, Ministry of Power, Ministry of Environment & Forest, Ministry of Science & Technology successfully organised an international summit Fly Ash: 2012
- In support of Ministry of Power & Ministry of New & Renewable Energy, successfully organised an international summit NSES: 2012
- In support of Ministry of New & Renewable Energy, successfully organised an international summits Waste to Energy: 2012
- In support of Ministry of Coal & Ministry of Power, successfully organised an international summits COAL ASIA: 2012
- In support of Ministry of Coal & Ministry of Power, successfully organised an international summits COAL GAS: 2011 & Fly Ash Utilization: 2011
- In support of Ministry of Coal, successfully organised an international summit COAL GAS: 2010

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

Sponsoring this COALGAS: 2014 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
Gasification Technologies & Research Council of India (GTRC) is an initiative of Mission Energy Foundation, a national organisation promoting a better understanding of role gasification can play in providing power, chemical and refining industries with economically competitive and environmentally conscious technology option to produce electricity, fuel and chemicals & providing a forum for exchange of information and expertise in the field of gasification technology at national & international level.

The council’s mission is to foster the increased utilization gasification technology, through the promotion of the environmental, economic and technical advantages, to benefit members and the community as a whole. To encourage, promote and facilitate education, research and other activities for gasification technology. We would work for the council to be recognized as an effective industry organisation, nationally and internationally, in representing the interests of its members in the further development of the technology.

For more understanding, kindly visit http://gtrc-india.org

Chairperson

Governing Body Members
Past Participant List

20 Microns Limited
A Hartrodt (India) Pvt Ltd
Adani Gas Limited
Adani Mining Pvt Ltd
AE Coal Technologies India
Aegis Limited
Air Liquide India Holding Pvt. Ltd
Akermi India Pvt Ltd
Alfa Laval (India) Limited
Argus Media
Arcanis Power Limited
Asahi India Glass Ltd
Ashutosh Engr. Consulting
Axens India Private Limited
B G Exploration & Production
B L A Industries Pvt. Ltd
Bharani Engineering Polymers
Bharat Coking Coal Limited
Bharat Heavy Electricals Ltd
Bhilal Engineering Corporation
Birla Power Solution Limited
BMM Ispat Limited
BOC India Limited
Canadian High Commission
Case Neuberg Solutions
Central Coalfields Limited
Central Electricity Authority
CMFR
CMPDI
Chanderpur Works
Chennai Petrochemical
Corporation Limited
Chemical Industries GmbH
Coal India Limited
Combustion Research Associate
ConocoPhillips Inc.
Coromandel International Limited
CSIR
Damodar Valley Corporation
Danieli India Ltd
DBSV Research
Deeyak Fertilisers
DERC
Delkor Technik India Pvt. Ltd.
Detolite Touche Tohmatsu India
Dev Energy Equipments Pvt. Ltd.
Eastern Coalfields Limited
E-Gas Technology
Emerson Process Management
Energy Infra Technologies & Engineering
Engineers India Limited
Essar Energy Pibc.
Essar Engineering Services Ltd
Essar Exploration and Production
Essar Investments Limited
Essar Limited
Essar Steel Limited
Exergy Dryers Pvt. Limited
ExxonMobil Research and Engineering Company
Flour Danielia
Foster Wheeler
Ftreare Fuels LLC
GAIL (India) Limited
GE India Industries Ltd
GMR Energy Limited
GNFC Limited
Godawari Power & Ispat Ltd
Gopal Glass Works Ltd
GSPC Pipavav Power
GTC Technology US, LLC
GERC
GMDC
Gujarat Narmada Valley
GSECL
Gupta Corporation Ltd
Haldor Topsøe A/S
Haldor Topsøe India
Harshini Infrastructure
HERC
Hizara LNG Private Ltd
Heliconsulting Pvt Ltd
Hindustan Petroleum Corp. Ltd
Honeywell Automation India Ltd
Ideal Units
IFRC
IL & FS Energy
Impex Energy Solution LLC
IFFCO
Indian Oil Corporation Limited
Indiaco Steel Limited
Indu Projects Ltd
Infobridge Information Services
Infrastructure World LLC
Innovative Environmental Tech
Institute of Reservoir Studies
IRAPca
J Sagar Associates
Jacobs Engineering India Pvt. Ltd
Jai Balaji Industries Limited
Janki Corp Limited
Jawaharlal Nehru University
Jindal Steel & Power Limited
Jindal Power Ltd
Johns Metals
Johnson
Johnson Matthey
Joshil Technologies Int Inc.
JSW Energy Limited
JSW Ispat Steel Ltd
Jubilant Empro Pvt Ltd
Jubilant Oil & Gas Pvt Ltd
K S Chemicals & Additives
Kaiser Optical Systems, Inc.
KazStroy Service Infrastructure
KBR India
Kirloskar Pneumatic Co. Ltd
Kobe Steel, Ltd.
KSK Mineral Resources Pvt Ltd
Lanco Anpara Power Limited
Lanco Infratech Limited
LanzaTech India Pvt. Ltd
Larsen & Toubro
Linde Engineering India Pvt Ltd
Lonrho India Co Pvt Ltd
M N Dastur & Company (P) Ltd
Madras Fertilizers Limited
Mahanadi Coalfields Limited
Man Turbo India Private Limited
Mangalore SEZ Limited
MECON Limited
Midrex Technologies, Inc.
Midwest Granite Pvt Ltd
Mittal Enterprises Limited
Ministry of Environment & Forest
Ministry of External Affairs
Ministry of Petroleum
Ministry of Road Transport
Ministry of Science & Technology
Ministry of Coal
Ministry of Power
Ministry of Fertilizers
Mitchell Drilling
Mitsubishi Power Systems
Monnet Ispat & Energy Limited
Nalcom Industries Ltd
National Environmental Engineering Research Institute
National Fertilizers Limited
Neyveli Lignite Corporation
NMDC Limited
Northern Coalfields Limited
NTPC Limited
Oil & Natural Gas Corporation
Oswal Chemicals & Fertilizers Ltd
Pall India Pvt. Ltd.
PDDU
Paradeep Phosphates Limited
PAVAC Industries Inc
Planning Commission
Prakash Industries Ltd
Precision Engineering Industries
Project & Development India
Radhe Renewable Energy
RSPCL
Rashtria Chemical & Fertilizer
Reliance Industries Limited
Reliance Infrastructure Limited
Rishihcoja Energy & Engineering
SAIL-GET
Sasol Synfuels International
SBIC Capital Markets
SBQ Steels Limited
Sesa Goa Limited
Shanghai Zhenag Mindac
Machinery Equipment Co., Ltd.
Shell India Markets Pvt Ltd
Shell Technology
Shriram EPC Limited
Siemens Ltd
Simon India Limited
Singhania Technical Services
Sitara Chemical Industries Ltd
SMS Envocare Ltd
SNC Lavalin Engineering India
Solar Industries Limited
South Eastern Coalfields Limited
Synthesis Energy Systems
Tata Chemicals Ltd
Tata Consulting Engineers
Tata Power Co Ltd
Tata Refractories Limited
TERI
Thermal Systems
Thermax Limited
Thess India Pvt Ltd
Udeh India Private Limited
Unicoke Private Limited
Unitech Machines Limited
UOP India Pvt. Ltd
UPES
Vehicles Research and Development Establishment
Veolia-Valves India Pvt. Ltd
Vikalash Engineering Industries
Viresco Energy, LLC
Weisspun Energy Limited
Weisspun Power & Steel Limited
Western Coalfields Limited