



**Summit Theme:**

**Solution for  
Sustainable Environment  
& Energy Supply**

3<sup>rd</sup> annual international summit

# COAL ASIA 2012

**Summit Theme: Solution for Sustainable Environment & Energy Supply**

**27 - 28 February 2012**

**NDCC II Convention Centre, NDMC Complex, New Delhi, India**

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Ministry of Power  
Ministry of Environment & Forest\*  
Ministry of Chemical & Fertilisers\*

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2012

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## An Introduction

Coal is one of the more abundant minerals in the world — proven reserves are estimated to be 860 billion tonnes. So why is there so much of a rush to secure supplies suddenly?

The answer lies in three factors — the soaring power demand in India and China, the growing worldwide steel production, and finally, the increasingly stringent environment regulations. Between them, they are ensuring that demand for coal rapidly outstrips supplies.

As a prospering economy, India faces energy security as a growing challenge and the coal production is expected to grow at a CAGR of around 7% during 2011-12 to 2013-14. The Indian coal market is set to witness great boost in near future on the back of rising government initiatives. Recently, de-allocation of coal blocks and stake sales in PSU are some of the major steps that were taken by the government to boost the production and investment in the coal industry.

At present, India's energy mix majorly consists of coal (52 per cent), oil (32 per cent), gas (10 per cent), hydro electricity (5 per cent) and nuclear energy (1 per cent). Due to ever increasing concerns over climate change, cleaner fuel like gas is preferred over fossil fuel (coal). Therefore, to address these concerns, India has increased share of gas in its energy mix in by 25.5 per cent from 2008 onwards. Gas is consumed by major sectors like power, fertiliser, city gas, etc. Further, users consuming liquid fuels are shifting to gas, and many Greenfield proposals (based on gas) are coming up. The upward pressure would widen the demand supply mismatch in the coming years. To address these concerns, India is making efforts to bring gas through trans-border. In addition, it is exploring un-conventional alternatives such as Coal Gasification for supply of energy.

Varied coal gasification technologies are re-evolving over the globe to replace the conventional power generation methods. The process reduces the emission of greenhouse gases (GHGs), and leaves residual -ash and rock inside. In addition, it is the only available method to exploit the unmineable coal resources, thereby tapping the potential coal reserves of the country.

## Why COAL ASIA: 2012

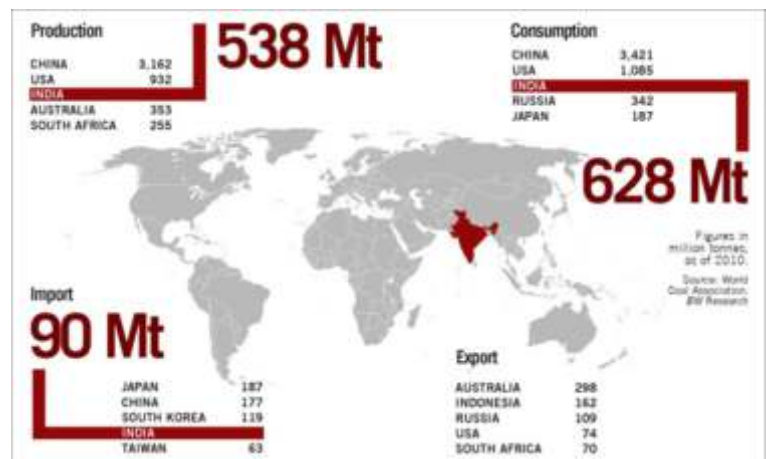
In this milieu, Mission Energy Foundation has been highlighting coal gasification as a potential technology to address the country's energy demand by conducting international summits COAL GAS: 2010 & COAL GAS: 2011. Promoting the technology as an alternative to conventional way of energy production; along with a feasible option to exploit the irrecoverable resources have been the aim & objective of organising the international summits.

With our expertise in organising and delivering successful international summits on the this important subject the in the aegis of **Ministry of Coal & Ministry of Power**, we, in association with Abhijeet Group are glad to announce the **3rd annual international summit COAL ASIA: 2012**, an annual gathering to learn, debate and build the connections that will help you benefit from this emerging industry is being scheduled for 27th & 28th February 2012 at NDCC II Convention Centre, NDMC Complex, New Delhi.

Under the leadership of Mr. R G Rajan (CMD, RCF), Mr. Manoj Jayaswal (Chairman - Abhijeet Group) & Dr. R V Marathe (Director - ONGC) as our Summit Patrons and a group of advisory board members; we aim to deliver a high level of quality discussion on the theme "**Solution for Sustainable Environment & Energy Supply**" during the two intensive days of the said international summit. The Advisory Board includes professionals from industry, universities and government bodies closely associated from the growing energy sector.

The international summit COAL ASIA: 2012, provides intensive details about the current trends prevailing in the industry and future growth potential. Additionally, it will presents a comprehensive and coherent analysis of the Indian Coal Industry in correlation of past drivers, challenges, and opportunities for expansion. But despite its huge resource base, till date, India has not been able to minimize its coal deficit, WHY? The summit will bring together coal producers, coal technology providers and governments to explore the prospects for UCG, coal liquefaction, commercial advantages, environmental issues and a review of some of the projects in India and overseas.

The summit will focus on commercial opportunities that continue to exist and emerge in addition to regulatory and government frameworks which govern and encourage the industry sector's development. The aim of the summit is to provide attendees with the opportunity to hear from experts from all aspects of the industry and discuss most important issues in this field through a mix of case studies and presentations..



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## Summit Patrons



R G Rajan  
RCF Limited



Manoj Jaiswal  
Abhijeet Group



Dr. R V Marathe  
IRS (ONGC)

## Program Committee



A K S hrivastava  
Abhijeet Group



Alexander Schriefl  
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Jona Pillai  
Jindal Steel & Power



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## Who Should Attend COAL ASIA: 2012?

CEO, COO, Director, Financial Director, President, Vice President, General Managers, Managers, Policy Officers, Environment / CO2 Manager across National & International energy sector

## Why Sponsor COAL ASIA: 2012?

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

Sponsoring this International conference COAL ASIA: 2012 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
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## Industry verticle

- ▶ Steel
- ▶ Coal Mining
- ▶ Petroleum & Natural Gas
- ▶ Chemical & Fertilizer
- ▶ Power Generation
- ▶ Engineering & Technology Cos'
- ▶ State Electricity Boards
- ▶ EPC Contractors
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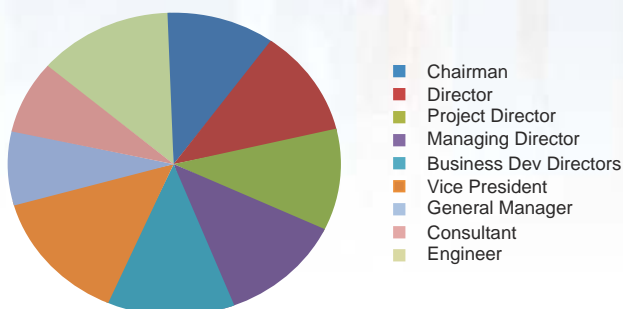
**NDCC II Convention Centre, NDMC Complex, New Delhi, India**

## Some Important Movements...

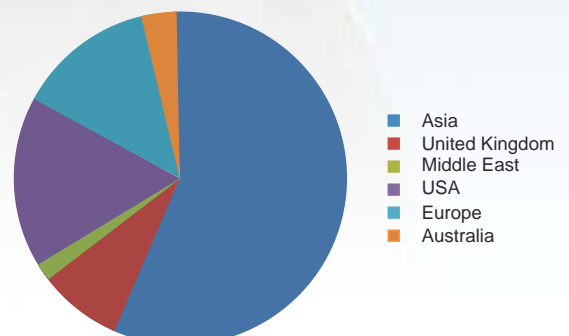
- 48 coal gasification plants under operation globally with total 191 coal gasifiers
- 50 projects are under various phases like planning, pre-FEED, FEED, design, development, construction and startup etc v/s 2 projects in India (Strategic Energy Technology Systems & Jindal Steel & Power Limited)
- CMPDI floated tender for commercial development of two UCG blocks
- ONGC signed an agreement with Skochinsky Institute of Mining (SIM) to provide assistance in selection of suitable sites for UCG
- MoUs signed between GMDC, NLC & CIL to co-operate in UCG projects
- Gail is exploring the possibility of prospecting in-situ coal/ lignite gasification at Barmer
- Essar Oil Ltd. has signed a pact with Clean Global Energy Ltd. to diversify into UCG
- Clean Global Energy has proposed a MOU with Nagarjuna Fertilizers and Chemicals Ltd
- Adani Group has signed a MoU with Carbon Energy to to pursue UCG projects
- Shiv Vani signed MoU with Linc Energy for UCG/GTL projects
- Rajasthan State Mines & Minerals Limited (RSMML) has recently invited the expression of interest for strategic tie-up for UCG
- Synthesis Energy Systems Announces \$5.0 Million Strategic Equity Investment from Zuari Industries Limited
- Kirloskar Pneumatic (KPC) is engaged in manufacturing coal gasification compressor segment and it received the first ever order in India of about Rs.100 crore
- Abhijeet Group has joint-venture with Ergo Exergy for UCG technology
- Shriram EPC Limited plans to set up a coal gasification plant in Orissa
- Rashtriya Chemicals and Fertilizers (RCF) is exploring potential of proposed surface coal gasification project at Talcher
- RIL is looking to set up a petcoke gasification plant at Jamnagar refinery and petrochemical complex
- Ministry of coal have recently visited European nations - Czech Republic, Belarus and Poland - to seek technology for underground coal mining
- Ministry of Coal had also made visit to South Africa, seeking modern technology for underground coal mining

## International Summits COAL GAS: 2010 & COAL GAS: 2011

Participation Profiles Breakdown



Countries Participation Breakdown



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**08:00 Summit Registration**

## INAUGURAL FUNCTION

### **Chief Guest's Welcome Address'**

09:00 Shri Sriprakash Jaiswal, **Union Minister of Coal**

09:15 Shri Sushil Kumar Shinde, **Union Minister of Power**

### **Summit Patron Welcome Address'**

09:30 Shri R G Rajan, CMD – **RCF Limited**

09:40 Dr. R V Marathe, Director – **ONGC Limited**

09:50 Shri Manoj Jayaswal, Chairman – **Abhijeet Group**

### **Keynote Address'**

10:00 Shri R K Sachdev, Former Advisor Coal - **Ministry of Coal**

10:10 Shri K P Singh, EX- Member, **CEA**

10:20 Shri Chandra Bhushan, Dy. Director - **CSE**

10:30 Shri V R Sharma, Dy. MD & CEO – **Jindal Steel**

### **Live Demonstration**

10:40 **Eocene (new era) of the World - Base of a Real Renewable Fossil Technology**  
**Dr. Endre Simonyi, - Hungary**

### **Vote of Thanks**

10:40 Shri Ashwinkumar, DG – **Mission Energy Foundation**



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Monday, 27<sup>th</sup> February

## Policy Forum: Shaping the future of BLACK GOLD

Session Chairman: Alok Perthi, Secretary – Ministry of Coal

11:00 Coal Gasification Characteristics: Focus on high ash Indian Coal  
Dr. Kalyan Sen, Former Director - **CFRI**

11:40 Solution for Sustainable Environment & Energy Supply – Coal Mining Sector  
Prof. Satish Kumar Sinha – Professor, **Indian Institute of Coal Management**

## Sustainability of Coal Supply and Demand Can We Outstrip the Demand?

Session Chairman: Shashi Kumar, Former CMD - **Coal India Ltd**

12:00 Focus on Coal Supply and Demand: India  
Amitava Banerjee, Advisor – **Lurgi India**

12:40 Energy sector – Sustainable Development  
Abdul Kalam, Director - **NMDC**

## Networking Lunch Break

## COAL GASIFICATION: Current Status & Future?

Session Chairman: : Anand Kumar, Director – **Petrotech Society**

14:00 Jindal Experience on Coal Gasification  
C Naharpalli - **JSPL**

14:20 Gasification – Developments in Syngas Utilization  
G S Dang, Visiting Professor – **UPES**

14:40 Gasification and its Integration with Refinery  
Parthasarathi Deb – Senior Vice President - **RIL**

15:00 Coal Gasification as a route for a viable Urea - Ammonia Plant  
M.Thyagarajan ,G.M.(Corporate) - **RCF**

## Refreshment & Networking Break

## Coal Gasification Technology in India – Application & Development (Part 1)

Session Chairman: Thomas Mathew, Sr. Group VP - RIL

16:00 Mark+ – The Next Gen of Lurgi's FBDBTM Gasifier  
Dr Stephal Schwinghammer, Manager - **Lurgi GmbH**

16:20 Coal gasification and its Development at Alfa laval  
Francois Reverdy, Clean Power Biz Developer - **Alfa Laval**

16:40 Demonstration of the TIGAS Process  
Nikolaj Knudsen, General Manager, **Haldor Topsoe** **A/S**

17:00 Zemag presentation  
Lu Huang, **Minidac**

17:20 MXCOL<sup>®</sup> Ironmaking Technology for India: Flexible Technology for High Ash Coal  
Henry Gaines, Jr. PE - **Midrex**

*End of Presentation followed by Networking Dinner*

Tuesday, 28<sup>th</sup> February 2012

## Coal Gasification Technology in India – Application & Development (Part 2)

Session Chairman: Thomas Mathew, Sr. Group VP - RIL

09:30 Bioskrubber<sup>™</sup> Gas Desulphurisation Technology and its application for coal gas desulphurisation  
Chandan Gadgil, CEO- Innovative Energy

09:50 New Development – Indian Gasifiers  
Krishnamoorthy, AGM CCDP - **BHEL**

10:10 SNG Technology - Methanation  
Leigh Taylor, Vice President - **Johnson Matthey**

10:30 Commercial Redevelopment and Application  
Phil Amick, Commercialization Manager – **ConocoPhillips**

## Refreshment & Networking Break

## UCG: Transition from Trial to Commercial Production

Session Chairman: A K Shrivastava, Group Dir – Abhijeet Group

11:00 Technological Integration of UCG and CBM to Harness the Energy Resources: A Conceptual Image  
Dr. A K Singh, Scientist & Head - **CIMFR**

12:30 Commercial viability and present status  
A K Shrivastava, Group Dir – **Abhijeet Group**

## Networking Lunch Break

## Research & Development & Environmental Concerns

Session Chairman: Dr Srikanta K. Panigrahi, DG - IISD & Adv. to PM (Mission on Climate Change)

14:00 Environmental Issues related to Coal Gasification Technology  
Dr. P B Rastogi, Dir & Mem Sect EAC - **MoEF**

14:20 High-Power Linear Electron Accelerators and its Application for Air Pollution Management  
Ralf Edinger, President- **PAVAC Industries Inc**

14:40 Environment Management Systems in a Coal Mining Co.  
Ramnivas Jindal, Jt. Dir - **MoEF**

16:00 Valedictory Session  
Honorable Shri Sriprakash Jaiswal, **Union Minister of Coal**

16:15 *END OF SUMMIT & VOTE OF THANKS by Ashwinkumar.*

