



INDIA  
**ENERGY**  
FORUM

**FOOTPRINTS**  
**2017-18**

INDIA  
**ENERGY**  
F O R U M

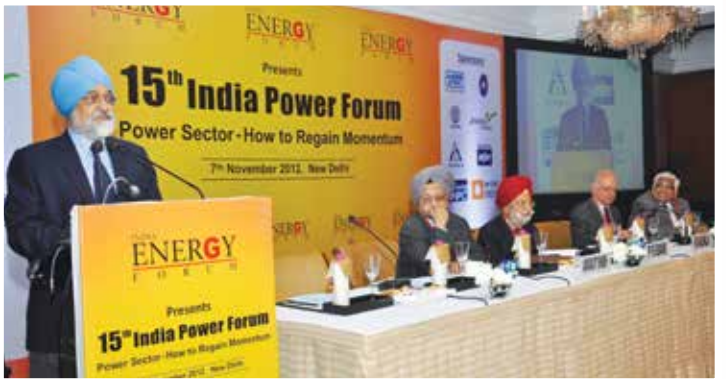
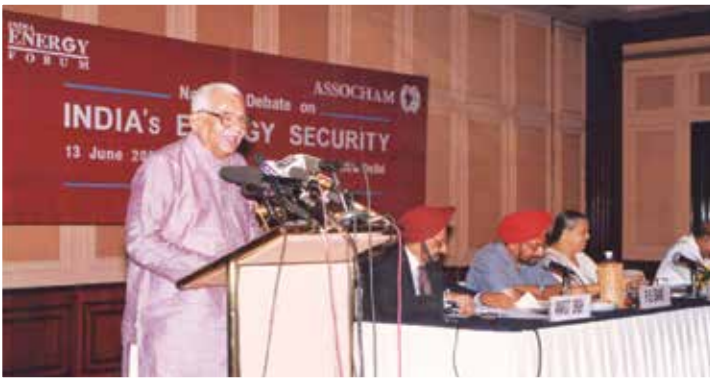
## OUR VISION

To Contribute Effectively for Development of Sustainable Energy Security for India

## OUR MISSION

- To help evolve a dynamic national energy policy
- To provide a platform for deliberation and recommendations towards development of competitive energy sector.
- To advise and assist the stakeholders in formulation and implementation of policies and programmes in energy sector.
- To promote a favourable regulatory framework for development of energy sector.
- To contribute towards optimal, efficient and sustainable use of energy resources.

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# SECRETARY GENERAL'S REPORT ON THE ACTIVITIES OF IEF DURING THE YEAR 2017

## ACTIVITIES OF 2017

A warm welcome to the 16th AGM of the FORUM. I have great pleasure and honour to inform you that we had a very successful, although, challenging 2017. The energy sector worldwide, has become very dynamic and is progressing towards a paradigm shift to clean energies, India has become a strong partner in these energy shift initiatives. Consequently, most programmes of the FORUM during the year were, so designed as to reflect the changing scenario and transition to new energies.

Brief notes on the key initiatives are given below:

### Annual General Meeting

The 15th AGM was held on Sunday 5th February, 2017 at India International Centre and was attended by a large number of its members and invited guests. Mr. Anil Razdan, President, IEF welcomed the members and Mr. Amarjit Singh, Secretary General presented a Report on activities during 2016. Mr. Y.R. Mehta presented the accounts of the year.

As per the constitution of the Forum the tenure of the members of the Board is for two years. Consequently, there was no election and the term of the previous Board was extended for the year.

The following office bearers will continue for the year 2017.

1. **Mr Anil Razdan**, President
2. **Mr G C Mrig**, Vice President
3. **Mr Sunjoy Joshi**, Vice President
4. **Mr Amarjit Singh**, Secretary General
5. **Mr Y R Mehta**, Treasurer

The FORUM presented its Annual Meritorious Service Award 2016 to Dr. Kirit Parikh, Chairman, IRADE and

Former Member (Energy), Planning Commission. Dr. Parikh has played an important role in the development of energy sector in India. He was always available for the FORUM's initiatives. The award was presented to him by Mr. S.C. Tripathi, Former Secretary, Ministry of Petroleum and Patron, IEF

The FORUM's initiatives are devised into three broad sections. Annual Flagship Conferences on sub-sectors viz; power, coal, petroleum, renewables and nuclear; Urja Vichar Manch meetings and Publications. Brief reports are appended.

#### FLAGSHIP ANNUAL EVENTS:

- 6th Roundtable Conference on Coal
- Chennai Conference
- 9th Nuclear Energy Conclave
- 20th India Power Forum
- 17th Renewable Energy Summit
- 15th Petro India

### 6th Roundtable Conference on Coal

Wednesday, 20th September 2017, Sovereign 1, Hotel Le Meridien, New Delhi

#### Theme: Indian Coal – Today and Tomorrow

**India Energy Forum (IEF)** jointly with the **Mining, Geological and Metallurgical Institute of India (MGMI), Delhi Chapter and the Indian School of Mines Alumni Association (ISMAA)** with the support of **Ministry of**

**Coal** and active contribution from various stake-holders organized 6th Roundtable Conference on Coal on 20th September 2017. The Theme was **"Indian Coal - Today and Tomorrow"**



Inaugural Session: The Conference was inaugurated by **Shri Susheel Kumar**, Secretary, Ministry of Coal. **Shri Anil Razdan**, President, India Energy Forum gave the welcome address and Theme of the Conference was introduced

by **Shri U Kumar**, Past President, MGMI. **Shri G C Mrig**, President, ISMAA DC also addressed at Inaugural Session. **Shri P R Mandal**, Chairman, MGMI DC and Former Advisor, Ministry of Coal gave Vote of Thanks.



**The First Technical Session on "Policy Initiatives" was jointly chaired by Shri C Balakrishnan**, Former Secretary, Ministry of Coal and **Shri PS Bami**, Former CMD, NTPC. The other speakers were : **Shri Pankaj Batra**,

Member (Planning),CEA;**Shri D N Prasad**, Former Advisor, Ministry of Coal;**Shri Gopal Prasad**, GM (PAD), CMPDI and **Shri Rahul Tongia**, Head, Brookings India. **Shri M.N. Jha**, Former CMD,SECL /CMPDI **was the Session Coordinator.**





The Second Technical Session on “Exploration, Planning and Production” was jointly chaired by **Shri Alok Perti**, Former Secretary, Ministry of Coal and **Shri M S Nagar**, Former CMD, Rare Earth Ltd. The other speakers who address the session were : **Shri P M Prasad**, Executive

Director (F), NTPC; **Shri A K Datta**, Sr. Dy GM Mining Machinery Business, Larsen & Toubro Ltd; **Dr A Surendra Babu**, GM (Min.), SECL and **Shri Gopal Prasad**, GM (PAD), CMPDI . The Session Coordinator was **Dr M M Seam**, Former Advisor, Essar Mining.



The Third Session on “Clean Coal Technology; Coal Gasification and Underground Coal Gasification, AMM / CBM/VAM” was jointly chaired by **Shri B B Dhar**, Former President, MGMI and **Shri Peeyush Kumar**, Director (Tech), Ministry of Coal. The other speakers were **Shri**

**Rajesh Jha**, CEO, Adani Synergy Ltd; **Shri M S Sandhu**, Consultant, J P Group; **Shri Manoranjan Hota**, Advisor, MoEFCC; and **Shri Kapil Dhagat**, Executive Vice President, JSPL. Shri Ashok Mehta, Former CMD, WCL was the Coordinator of the Session.





The **Valedictory Session** was chaired by **Shri S K Chowdhary**, Former Chairman, Coal India Ltd. The Distinguished Panelists who address the session were **Shri N N Gautam**, Former Advisor, Ministry of Coal; **Shri U Kumar**, Former CMD, ECL/NCL; and **Shri P R Mandal**, Former Advisor, Min of Coal. Draft Recommendations emerged during the deliberation were presented by

**Dr M M Seam**, Former Adviser, Essar Minerals. **Shri S K Grover**, Former GM, NTPC, summed up the Conference and presented a Vote of Thanks.

The Conference was attended by large number of sectoral experts both from the public and private sectors.



### Conference on "Tamil Nadu Moving towards 24/7 Sustainable Power Supply" 6th October, 2017, Chennai

India Energy Forum jointly with the Madras Chamber of Commerce & Industry had organised a Conference on "TN Moving Towards 24x7 Sustainable power Supply" on 6th October 2017 in Chennai. The one day conference provided a valid platform to discuss ways of strengthening the power sector in the State and the country. The

conference focused on the current status of Generation & distribution, Existing Capacities and upcoming power projects in the State, Perspectives of the Power producers, Storage and pricing of Power, Financing of power projects, Energy Efficiency and other related topics.



**Inaugural Session:** Mr. T. Shivaraman, Past President, MCCI & Managing Director & CEO, Shriram EPC Ltd gave welcome address and Shri Anil Razdan, President, India

Energy Forum delivered the Special Address. Shri V Sriram, COO, IMACS, Chennai presented an Overview of TN Power Sector.



**Session I** was on “**Generating Capacity – More, Enough or less? – Power Producers Perspective**” which was chaired by **Mr. H.L Bajaj**, Former Chairman, CEA & Chairman, Power Group, India Energy Forum. The other speakers who shared their views were: **Mr. D. Venkatasubbiah**, CGM – Thermal, Neyveli Lignite Corporation; **Mr. R.**

**Satyanarayana**, Station Director, MAPS Kalpakkam; **Mr. K.V. Sajay**, EVP – Solar Business, Siemens Gamesa Renewable Energy; **Mr. S Venkatachalam**, Managing Director, Orient Green Power Co. Ltd and **Mr S. K. Kar**, General Manager – Commercial, NTPC, Bangalore.





**Session II** was on “**Distribution, Supply and Storage Status-Challenges & Opportunities**” which was chaired by **Mr. B. Bhambani**, Convenor, India Energy Forum. The other speakers were : **Dr Subir Sen**, COO, CTU Planning and Power Grids, Power Grid Corporation of India Ltd.; **Mr Shaji John**, Head – Solar BU, L & T Construction; Mr V.Balaji, Asst. General Manager, SRLDC, Bangalore; and Mr Manu Karan (tbc), Vice President Strategy, Clean Max Environment Solutions.

**Session III** was on “**Pricing, Financing, Efficiency for**

**a viable Power Sector**” which was Chaired by **Mr Anil Razdan** IAS (Retd.), President, India Energy Forum and Former Secretary (Power). The other speakers were **Mr Girish Kumar Kadam**, Vice President & Sector Head – Corporate Ratings, ICRA Limited; **Mr Shankar Rajaram**, Vice President – Business Development, Grundfos Pumps India Ltd; **Dr. Prabhjot Kaur**, Principal Scientist, IIT Madras; and Dr. J.Nagesh Kumar, Director, Centre for Energy, Environment and Productivity (CEEP).

The conference was largely attended by sectoral experts.

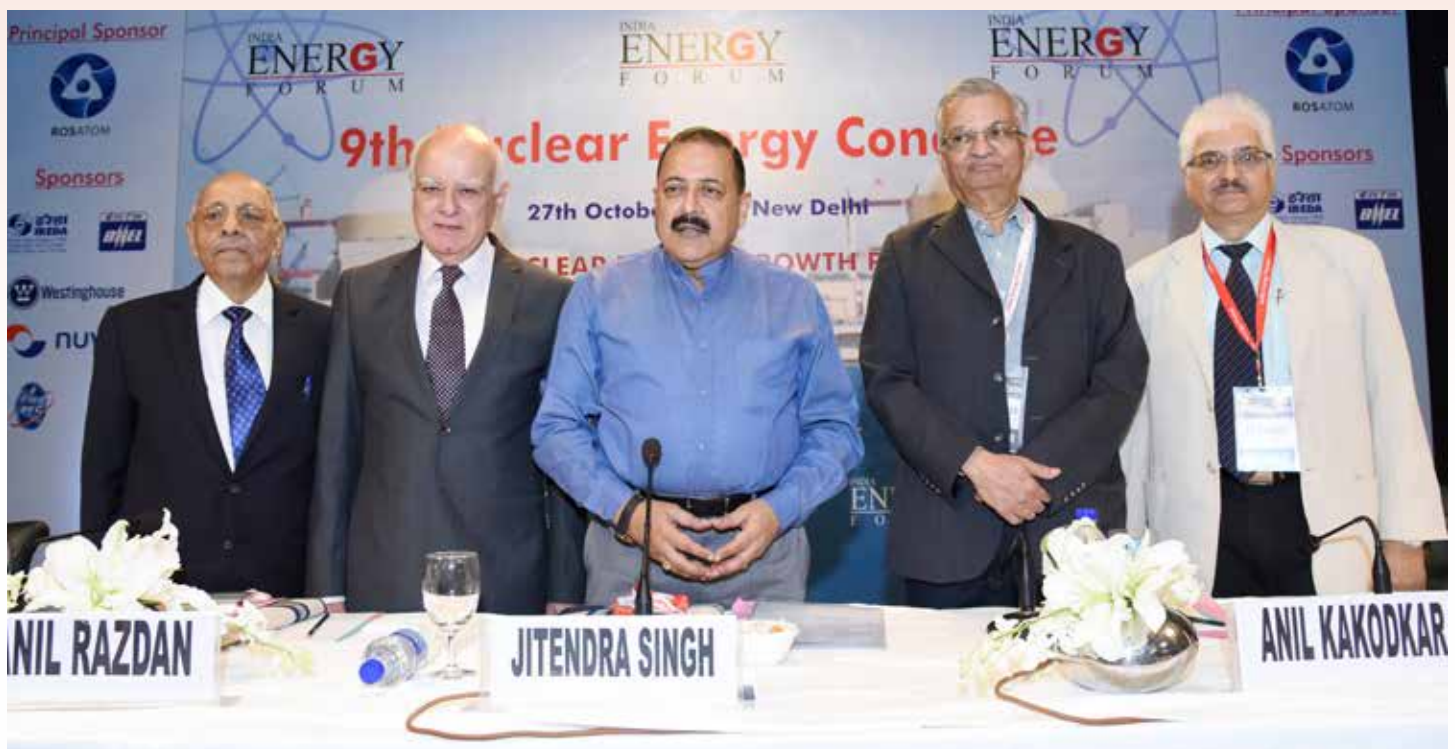
### 9th Nuclear Energy Conclave

27th October 2017, Hotel Le Meridien, New Delhi  
Theme: **NUCLEAR POWER: GROWTH PROSPECTS**

The flagship sectoral event of IEF – the 9th in the series – with the theme “**Nuclear Power : Growth Prospects**” was held highly successfully. It was well attended by captains of nuclear industry from India and overseas including foreign utilities planning to set up nuclear plants in India.

**Inaugural Session:** Dr Jitendra Singh, MoS (I/C) for DoNER, Mos in Prime Minister’s Office, Deptt of Personnel and Training, Deptt of Space and Atomic Energy was the Chief Guest and inaugurated the conference. While Introductory

Remarks was given by Shri V P Singh, Convenor, Nuclear Group, IEF, Shri Anil Razdan, President IEF and Former Secretary, Ministry of Power welcomed the delegates and dignitaries present. Theme address was given by Dr Anil Kakodkar, President, National Academy of Sciences India, Chairman-TIFAC and Former Chairman, Atomic Energy Commission and a Presentation on “Vision and Strategy for Growth of Nuclear Power in India” by delivered by Shri S K Sharma, CMD, NPCIL. Vote of Thanks was given by Shri V P Singh, Convenor, Nuclear Group, IEF



**A Special Lecture on “Regulatory and Safety Challenges in Rapid Growth Scenario in India with Diverse Technologies”** was given by Shri S A Bhardwaj, Chairman, AERB before the Inaugural Session.

**Plenary on “Approach to Rapid Growth of Nuclear Power including Strategy for Making India a Global Manufacturing Hub”** was chaired by Dr RB Grover, Homi

Bhabha Chair and Member Atomic Energy Commission. The other Distinguished Speakers were Shri Nikita Mazein, Vice President, Rosatom Overseas Russia ; Shri KM Rajan, Vice President (India Projects), Westinghouse Electric Co., USA ; Shri V Rajan Babu, Director (Tech), BHAVINI on “FBR” and Shri Lokesh Kumar, Executive Director (Procurements), NPCIL on “PHWR”. Facilitator of the Session was Shri S.M. Mahajan, Former ED, BHEL and Advisor (Power Sector).



**Plenary on “Emerging Nuclear Technologies for Medical Applications”** was chaired by Dr Harsh Mahajan, MD, Mahajan Imaging. The Distinguished Speakers were Shri GV Subrahmanyam, MD & CTO, Panacea Medical Technologies; Shri Kalpesh Bhatt, Head Mktg (Molecular

Imaging), Siemens Healthcare; Shri Gautam Narula, GM-RPS Operations, NUVIA India and Ms Minu Singh, Mg Director, NUVIA India. The Facilitator of the Session was Shri V P Singh, Convenor, Nuclear Group, IEF.



**Round table on “Industry Perspective and Preparedness to Meet Capacity Addition Targets of Nuclear Power”** was chaired Shri S C Chetal, Mission Director, Advanced Ultra Super Critical (AUSC) Project. The other Distinguished Panelists were Dr A K Bhaduri, Director, India Gandhi Centre for Atomic Research; Shri GK Pillai, MD & CEO, Walchandnagar Industries Ltd; Shri Mani TT, CMD, Avasarala Technologies Ltd.; Shri Kaustubh Shukla, COO, Godrej & Boyce Mfg. Co. Ltd; Shri Lokesh

Kumar, Executive Director (Procurement), NPCIL; Shri Yatinder Mohan, GM, Nuclear Power Business, BHEL; and Shri Muneesh Narain, Strategic Business Head, ADOR Fontec. The Facilitator was Shri S.M. Mahajan, Former ED, BHEL and Advisor, (Power Sector).

**Summing Up and Vote of Thanks** was by Shri S.M. Mahajan, Former ED, BHEL and Advisor (Power Sector)



## 20th India Power Forum 2017

Wednesday, 22nd November 2017, Sov 1, Hotel Le Meridien, New Delhi

### Theme: "Sustainability of Power Business – Paradigm Shift"

The annual prestigious flagship event the 20th India Power Forum continued the tradition. The theme of the FORUM this year was **"Sustainability of Power Business: Paradigm Shift for 24x7 Power for All"**.

ICRA Management Consultancy Services Ltd. (IMACS) was the Knowledge Partner.

**Inaugural Session:** The Conference was inaugurated

by Shri Amitabh Kant, CEO, NITI Aayog. Shri Ajay Kumar Bhalla, Secretary, Ministry of Power delivered the Special Address. Mr Anil Razdan, President, IEF welcomed the Distinguished Chief Guest, Speakers and participants. The Theme Presentation was made by Mr. Sanjeev Sinha, CEO & MD, IMaCS and Head Non Rating Business, ICRA. Shri B Bhambhani, Convenor, Power Group, IEF gave the Introductory Remarks, Shri Amarjit Singh, SG, IEF delivered the Vote of Thanks.



**Session I** focused on issues relating to **"Power Generation Scenario by 2022, Business Case of Decommissioning Thermal Power Plants and their Replacement with Efficient and Cleaner Units"**. The Session was chaired by Shri R K Verma, Chairperson, CEA. The other Distinguished Speakers were : Shri R N Misra, CMD, Satluj Jal Vidyut Nigam Ltd; Shri Rakesh Nath, Former Chairperson, CEA & Former Member, APTEL; Shri R S Sharma, Former CMD,

NTPC & M.D., Lalitpur Power Gen Co.; Shri S N Roy, Director, L&T; Shri P K Mohapatra, ED (Tech), NTPC; Shri J Chaudhary, ED, NHPC; Shri Nitya Nanda, Fellow & Area Convenor, Centre for Resource Efficiency & Governance, TERI; Shri Anup Bhargava, Executive Director, Jindal Power Ltd; and Shri Prashant Jain, Vice President and Head of Power Generation Services, Siemens.



**Session II focused on “Transmission and Sub-Transmission Network by 2022 – Present Status and Future Plans”:**

The Session was chaired by Shri P S Mhaske, Member (Power System), CEA. The other Distinguished Speakers were Shri R P Sasmal, Director (Operations), PGCIL; Shri Shailesh Pathak, CEO, L&T IDPL; Shri Rajesh

Suri, Vice President & Head (Engineering), HVDC, GE T&D India; Shri Purnendu Chaube, VP (EPC), Kalpatru Power Transmission; Mrs Renuka Gera, GM, (IC), BHEL and Shri Kaustuv Roy, Head Engg, Transmission Solutions, SIEMENS India.



**Session III focused on “Post UDAY : Health of Distribution Sector”**

which was chaired by Shri Anil Razdan, President, IEF and Former Secretary (Power). The other Distinguished Speakers were Shri B C K Mishra, MD, Utrakhhand Power Corpn; Shri S K Gupta, Director (Technical), REC; Shri Gopal Saxena, Director, BSES Rajdhani

Power Ltd and Shri Sanjay Banga, Sr Vice President (BD), TATA Power DDL. Rapporteur was Mr S R Sethi, Former Member, DERC.

Large number of delegates from power sector in public and private sector participated.





## 17th Renewable Energy Summit

14th February 2018, Gulmohar, India Habit Centre, New Delhi

**Theme: Ecosystem for Meeting Renewable Energy Targets 2022**

IEF annual flagship event on Renewable Energy “17th Renewable Energy Summit” was organised on 14th February 2018.



**Inaugural Session:** Mr. V Raghuraman, Convenor, Renewable Summit, IEF gave introductory remarks, Shri Anil Razdan, President, India Energy Forum and Former Secretary, Ministry of Power gave the Welcome Address. The Key-note Address was delivered by Shri K S Popli, CMD, IREDA & Chairman, Renewable Group, IEF. The Conference was inaugurated by Dr Kirit Parikh, Chairman, IRADE and Former Member (Energy), Planning Commission Shri V Subramanian, Former Secretary, MNRE & SG & CEO, INWEA also addressed the Session.

**Session I focused on “Manufacturing Systems for Renewable Energy Devices and Equipment (Solar; Storage, etc.)”** which was chaired by Mr Deepak Gupta, Former Secretary MNRE



The other Distinguished Speakers were Mr Arun Srivastava, DG, Independent Solar Power Producers Alliance (ISPPA); Mr Jaydeep Malviya, SG, Solar Thermal Federation of

India, and Mr Rakesh Kumar, Programme Director & Sr. Consultant, International Solar Alliance (ISA)

**Session II focused on Waste to Energy – Large Size Biogas Plants Large scale utilization of industrial effluents for power generation and related technologies including Stubble Burning, Animals shelters; Dairy Waste and others.**



The Session was chaired by Shri Anil Razdan, President, IEF. The other Distinguished Speakers were Shri Amit Kulshrestha, Head (Bio-fuels), and Additional GM, NTPC; Dr. D.K. Khare, Director, MNRE; Shri Rohit Modi, CEO, Essel Infraprojects Ltd; Shri Umesh Chopra, CEO, Jindal Urban Waste Management Guntur Ltd; and Shri Joy Manglani, Founder and President, Only Nature Endures (ONE)

**Session III focused on Infrastructure for Electric Vehicles, Storage and Charging Systems Lithium-ion and Solid State Batteries for Storage Charging Ecosystem for electric vehicles Policy Innovations.**



It was chaired by Dr Rahul Walawalkar, Executive Director, India Energy Storage Alliance. The other Distinguished Speakers were Dr P C Maithani, Advisor, MNRE; Shri Rajsekhar Budhavarapu, Former Head, Renewable, IL&FS

and Consultant, IFC; Shri Sumantra Barooah, Executive Editor, Autocar Professional; Shri Suhas Joshi, BU Head-Mobility & Charging Infra, Exicom Tele-systems and Shri Munish Sharma, Head – Business Analysis, BSES Rajdhani Power Ltd.,

BSES Yamuna Power Limited

**Concluding Session:** A Special Address on “Renewable Energy on Degraded Lands” was delivered by Dr. Pradeep Monga, Dy Executive Secretary, UNCCD.



### 15th Petro India Conference Future of Mobility in India: Outlook & Challenges

March 16, 2018, Hotel Le Meridien, New Delhi

In Partnership with ORF, The Forum Organised its Annual Flagship Event 15th Petro India Conference on 16th March, 2018 at New Delhi, the Theme was “Future of Mobility in India: Outlook & Challenges”. The conference brought together experts from various domains and organisations for a holistic debate - Senior most experts from SIAM, FIPI, SMEV, NIAS, IIT D, IOC R&D, Strategy &, PwC, WRI, EIL, Petronet, Maruti, Hero Honda and media like ET and others shared their assessment of outlook and challenges. We thank such eminent experts for sharing their views.

**Mr. Anil Razdan**, President IEF gave welcome address and said that Future Mobility has taken centre stage in the national debate in the country. This event has been designed to cover views of all the stake holders.

**Mr. Ashok Dhar**, Director, Observer Research Foundation, Kolkatta gave a well-researched presentation on the theme.

**Dr. Rajiv Kumar**, Vice Chairman, NITI Aayog inaugurated the conference and said that there is need for a policy to promote electric vehicles in India and all the stake holders



must combine to deliver a transportation model for future that meets country global reality. He said that Aayog is close to identifying the principal driver of this policy.

**Mr. Sunjoy Joshi** Chairman, ORF gave Concluding remarks.

**Session I : Future of Mobility : Perspectives from the Automobile Sector**





The Session was chaired by **Mr. J. M. Mauskar**, Advisor, Observer Research Foundation. The other Distinguished Speakers were **Mr. P K Banerjee**, Deputy Executive Director, SIAM; **Dr. Tapan Sahoo**, Sr. Vice President (R&D), Maruti Suzuki India Ltd.; **Mr. Sohinder Gill**, Global CEO, Hero Electric & Director (Corp. Affairs), The Society of

Manufacturers of Electric Vehicles; and **Mr. Christoph K. Klunker**, Senior Fellow, ORF.

#### Session II : Future of Mobility : Policy Options and Challenges



This Session was chaired by **Mr. S. C. Tripathi**, Former Secretary, Petroleum & Natural Gas & Patron, India Energy Forum. The other Distinguished Speakers were **Mr. Girish Sirodkar**, Partner, Strategy &, PwC; **Dr. R. K. Malhotra**,

Director General, FIPI; **Dr. Rumi Aijaz**, Senior Fellow, ORF; and **Prof. R. Srikanth**, National Institute of Advanced Studies

### Session III on Future of Mobility : Perspectives from the Refining Sector



**This Session was chaired by Mr. G. C. Chaturvedi**, Chairman, Oil & Gas Group, India Energy Forum and Former Secretary, Petroleum & Natural Gas. The other Distinguished Speakers were **Ms. Vartika Shukla**, Executive Director (R&D), EIL; **Mr. N. K. Bansal**, Director (Refining), FIPI; and **Dr. SSV Ramakumar**, Director (R&D),

IOC. The **Rapporteur** was Mr. Y R Mehta, Treasure, IEF & Former Director, GAIL

### Session IV: Future of Mobility : Transition to Low Carbon Fuels



**The Session was chaired by Mr. T. K. Arun**, Editor, The Economic Times. The Other Distinguished Speakers were **Prof. L. M. Das**, Emeritus Prof., IIT- Delhi. The **Mr. Amit**

**Bhatt**, Strategy Head (IUT), WRI; and **Mr. Pankaj Wadhwa**, Senior Vice President, Petronet LNG.



## URJA VICHAR MANCH MEETINGS

### Urja Vichar Manch

Thursday, 20th April 2017, PHD House, New Delhi  
Theme: Criticality of Financing Power Sector



This MANCH Meeting was held the important issue on **“Criticality of Financing Power Sector”** on 20th April, 2017. Two prominent Experts: Mr. Vikramjit Singh, Senior Country Officer – India IFC & Dr. Pawan Singh, Director (Finance), PTC India Financial Services gave the main presentation. This was followed by a lovely discussion.

The meeting was chaired by Mr. Anil Razdan, President, IEF, Mr. H L Bajaj, Chairman, Power Group gave welcome remarks and Mr. B Bhambhani, Convenor, Power Group gave introductory remarks. Mr. P.S. Bami, President Emeritus, presented mementos to the speakers.

### Urja Vichar Manch

Monday, 8th May, 2017; Modi Hall, PHD House, New Delhi

Theme: Wind Energy on Competitive Bidding – A Radical New Model



The Theme of this MANCH meeting was **“Wind Energy on Competitive Bidding - A Radical New Model”**. The key-note speaker was Dr. Rajib K. Mishra, Director, PTC India Ltd. In his address Dr. Mishra shared his views on the

issues including Options for Power offtake for RE Power Generator, Current Design of Indian Power Market, Power Exchanges in India, Issues and Challenges related to RE Power and Interstate Power Transmission.



Shri G C Mrig, Vice President, IEF Chaired the Meeting. Dr Malti Goel, Convenor, Renewable Energy Group, IEF gave introductory remarks and welcomed the dignitaries and participants. Shri Y K Jain, Senior Associate, National Solar Energy Federation of India also share his views on the subject. Mr Amarjit Singh, SG, IEF gave the Vote of Thanks.

The meeting was attended by a large number of members.

### Urja Vichar Manch

Tuesday, 29th August 2017, Shriram Hall, PHD House, New Delhi

Theme: “India’s Energy Transitions: Difficult Choices”

The theme of this meeting was **“India’s Energy Transitions: Difficult Choices”**. Dr. Arunabha Ghosh, Chief Executive Officer, Council of Energy, Environment and Water was the main speaker and delivered the key-note address. This was followed by interactive discussion.



Dr Ghosh shared his views on the issue of energy transitions in a constrained world. He said that energy transitions from traditional to modern energy; from rural to urban energy demand; from autarchy to global markets;

fossil fuel subsidy reform; Growth with sustainability are leading India's RE revolution.

Shri R M Sodhi, Convenor, Oil & Gas Group, IEF gave a brief introduction of the Speaker. While Shri Anil Razdan, President, India Energy Forum & Former Secretary, Ministry of Power welcomed the dignitaries and participants, Mr G C Chaturvedi, Chairman, Oil & Gas Group, IEF & Former Secretary, Ministry of Petroleum and Natural Gas gave his comments on subject and thanked Dr. Ghosh and participants.



The meeting was attended by a large number of members.

### Urja Vichar Manch

17th January 2018, PHD House, New Delhi

**Theme: Indian Advances in Ultra Super Critical (AUSC) Programme for More Efficient Power Generation**



The topic of this MANCH meeting was **"Indian Advances in Ultra Super Critical (AUSC) Programme for More Efficient Power Generation"**. The meeting was addressed by Shri S Biswas, Director (Engg, R&D), BHEL and Presentation by Shri S C Chetal, Mission Director, AUSC. While Mr B Bhambhani, Convenor, Power Group, IEF gave Introductory Remarks, Mr Anil Razdan, President, IEF and Former Secretary, Power welcomed the Speakers and participants and gave a background about the topic.

While Dr Biswas touched upon Introduction to supercritical power plant parameters and Background of AUSC development in India, Mr Chetal gave a presentation on the technical aspects of the programme.

### Urja Vichar Manch

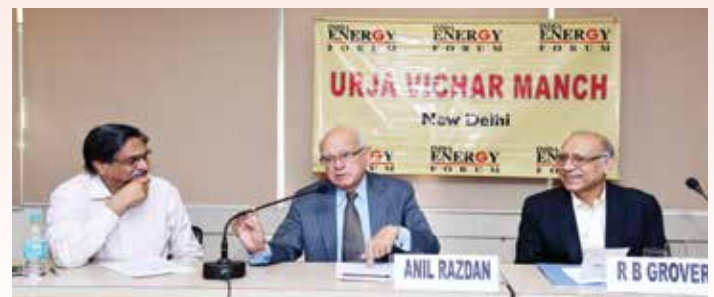
6th March, 2018; Shriram Hall, PHD House, New Delhi

**Theme: "Role of Nuclear Power in Electricity Mix of the Country"**



We had a very constructive meeting. The Chief Guest was the distinguished Scientist Dr. R.B. Grover of Homi Bhabha National Institute.

Mr. Mahajan in his introduction said that Dr. Grover is an encyclopaedia of the Atomic Energy.



Mr. Anil Razdan welcomed the Chief Guest and said that the topic of Dr. Grover's presentation was most relevant as the future of our energy requirements can be secured only if explore all the energy resources. The Nuclear Power is vital for securing base load requirements.

Dr. Grover gave a comprehensive presentation. The highlights are:

- For the past one decade, electricity generation has been growing at a CAGR of close to 6%. Looking at the



trend, generation will be ~ 8600 TWh by the middle of century.

- This is six times the generation in 2016-17. In per capita terms, it is about 4.5 times of the generation in 2016-17.
- Issues to be considered to meet the demand
  - Availability of energy resources,
  - Technologies for their efficient utilization,
- Security, reliability and resilience of supply

#### Conclusions:

- From health, safety and environment considerations, nuclear and renewable such as solar, wind and hydro outperform fossil fuel sources.
- The relative advantages and drawbacks of nuclear and renewables are perceived differently by different technical, experts and stakeholders.
- One should support all low carbon sources that is renewable and nuclear. Also coal with carbon capture

and sequestration.

- Fission based nuclear reactors have been around since the middle of the previous century, deployed on large enough scale for providing base-load electricity and subjected to much deeper scrutiny with regard to safety than any other electricity generating technology.
- Nuclear fuel has high energy density; nuclear power plants have large enough EROI, lowest external costs, low GHG emissions and competitive generation costs.
- India's electricity needs are very large and we need all technologies. 'Technology versus technology' debate has to stop as different electric power sources provide different elements of a balanced energy mix.
- India has multiple technology options at its disposal and can make a judicious selection based on economics and ease of implementation.

There was lovely discussion after the presentation.

## OTHER MEETINGS

### Meeting with ROSATOM Team

**29th March, 2017, Mohta Room, PHD House, New Delhi**

The Forum had organised the discussion Meeting with ROSATOM on 29th March, 2017 at PHD House, New Delhi.

ROSATOM team included: Mr Evgeny Pakermanov, President and CEO, RUSATOM Overseas; Mr. Nikita Mazein, Sr Vice President, ROSATOM Overseas; Mr Alexey Pimenov, CEO, ROSATOM South Asia (India) & Mr Vijay Joshi, Dy CEO ROSATOM South Asia (India). They explained their future programme in India. It was explained that ROSATOM is now looking for working with Indian companies for projects in other countries.

Mr. Anil Razdan, President chaired the meeting and Mr. V P Singh, Convenor, Nuclear Group; Mr. S M Mahajan, Former ED, BHEL and other members participated in this discussion. Mr. Amarjit Singh, SG gave Vote of Thanks.

**Interactive meeting on "Energy Cooperation between Ancient Civilisations" Wednesday, 20th December, 2017, Shriram Hall, PHD House, New Delhi**

A Think Tank FORUM on Energy Cooperation among Ancient Civilisation was organised by India China Economic Council and CNPC Economics and Technology Research Institute China on 17th November 2017 in Beijing, China. Shri S C Tripathi, Patron, IEF and Former Secretary, MoPNG and Shri YR Mehtra, Treasurer, IEF and Former Director (Marketing), GAIL represented India Energy Forum at this Forum.

Shri Tripathi and Shri Mehta gave a joint presentation and informed the members that China is changing fast and is indeed looking for foreign cooperation especially with India. Mr. Tripathi said he was a bit surprised to see a changed China since the vast of our mission a few years ago of their commitment to resolve the issues and progress is commendable. Mr. Mehta gave the presentation which Chinese had presented at the Event.

Shri Anil Razdan, President, IEF welcomed the participants and gave introductory remarks and Shri G C Chaturvedi, Chairman, Oil & Gas Group, IEF gave the Vote of Thanks. The meeting was largely attended by the members.

# PUBLICATIONS

## 1. INDIA ENERGY YEAR BOOK

The 16th Revised Edition of Year Book was brought out this year. This publication generates a lot of goodwill and revenue for the FORUM. A large number of complimentary messages are received from the top sectoral players.

## 2. TOTAL ENERGY

4 issues of this popular bi-monthly publication were released during the period and congratulatory comments were received in large numbers. The publication also helped us to spread information about our initiatives very broadly to the policy makers and energy professionals.

Many letters of appreciations were received from top sectoral leaders.

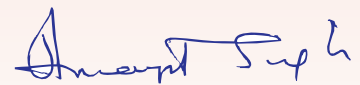
## 3. DAILY ENERGY ANALYSIS REPORT (E-Newsletter)

We continued circulating our daily e-newsletter "Daily Energy Analysis Report" to our members.

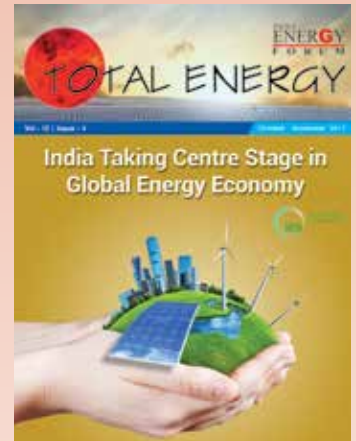
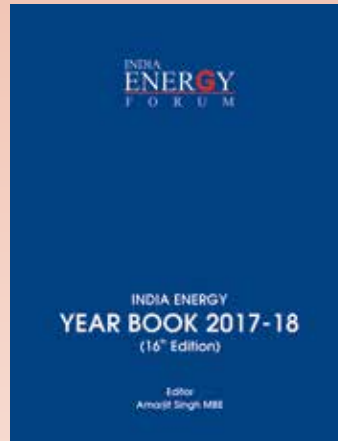
## FAMILY GET TOGETHER

As in the past, a family get together was held after the meeting in which spouses of the members attended in large number and added a great deal of companionship. Games like Tambola were organised for spouses.

My thanks are due to the National Advisory Board and Board of Management for their guidance, Members of the Executive Committee for their help day-to-day functioning, Chairmen and Convenors of the Sectoral Groups who took main responsibility of Organising their respective annual events, our Partners and Sponsors. Last but not the least our appreciation is due to our small but very efficient Secretariat headed by Mr S S Rawat and assisted by Ms Padma Tolani and Ms Deepti Arora.



(Amarjit Singh)  
Secretary General



# SUPPORTING PARTNERS



Delhi Chapter





# READERS RESPONSE TO THE IEF PERIODICALS FROM THE ARCHIVES

Thank you so much for your letter of July 27, 2017 and for a copy of INDIA ENERGY YEAR BOOK 2017-18. It is a valuable publication and would be a useful source of reference.

**M Hamid Ansari, Hon'ble Vice President of India**

This is to acknowledge receipt of your letter dated 27 September 2013 enclosing therewith a copy of latest issue of TOTAL ENERGY published by the India Energy Forum containing the views of key stakeholders of Oil & Gas, Power, Renewable Energy, Coal and Nuclear Sectors. I hope the issue will be very useful and informative for the respective fields and concerned industry as it contains important and detailed information on various sectors.

**Dr M Veerappa Moily, Minister for Petroleum & Natural Gas**

Thank you indeed very much for your letter dated 10th March 2008 forwarding therewith the latest issue of bi-monthly newsletter "TOTAL ENERGY", brought out by your organisation. I find it very interesting as well as useful.

**M V Rajasekharan, Minister of State for Planning, Planning Commission**

Thank you very much for sending the India Energy Bear Book 2013 which contains a directory of key energy players and statistical profile of each of the sub sectors viz Power, Oil & Gas, Coal, Renewable and Nuclear in the country and greetings for the new Year 2013.

**Justice M Karpaga Vinayagam**

Thank you for your special publication of TOTAL ENERGY. The proceedings of the two events on Energy are useful reference material and I commend you for bringing them out in a convenient publication.

**Shyam Saran, Special Envoy of PM**

Thank you for mailing the May-June edition of "TOTAL ENERGY" newsletter to ADB. The articles published in the issue are useful and informative, and I look forward to reading your magazine in the future as well.

**Hun Kim, Country, Director, ADB**

Thank you very much for your letter of the 6th April along with a copy of Newsletter "TOTAL ENERGY". This newsletter is an excellent effort on the part of the forum to disseminate information on all sectors of Energy in our country.

**PC Parakh, Secretary, Ministry of Coal**

Thank you for the informative India Energy Year Book that you have sent me, which I am sure will be very useful along with a diary which I appreciate.

**P R Menon, MD, Tata Power**

I am in receipt of the TOTAL ENERGY issue sent by you. It was a very good read for me giving the latest information on the subject. I am extremely thankful for your gesture and would like to continue the contact.

**M L Joshi, Former Head  
Health Physics Division, Bhabha Atomic Research Centre**

# READERS RESPONSE TO THE IEF PERIODICALS FROM THE ARCHIVES

I find that details given in TOTAL ENERGY are interesting as well as very useful as it offers update on all major developments of energy's sub sectors i.e. Power, Oil & Gas, Coal, Renewables and Nuclear.

**R K Madan, Adani Power**

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With the publication of TOTAL ENERGY Journal, you are extending excellent services to the field of Energy in India and we convey my heartfelt thanks for sending us the complimentary copy to our library.

**Prof M Ramakrishna Rao, Founder & Director (R&D)  
Society for Energy, Environment & Development**

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I find TOTAL ENERGY quite informative and interesting and have kept it in our Library for reference by interested members.

**Satish Bagrodia, President, PHDCCI**

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The booklet contains useful news & views on different aspects of energy sector viz. oil & gas, renewables, power, coal, nuclear, etc. which are placing in our Library for reference of our Member organisations.

**Suman Jyoti Khaitan, Preisdent, PHDCCI**

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Thank you for sending a coy of latest issue of TOTAL ENERGY magazine which si very informative with good substance.

**Vijay Kalantri, CMD  
All India Association of Industries**

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Bi-monthly bulletin TOTAL ENERGY is extremely interesting and provides very useful information. I keep it for my reference purposes.

**Anjan Roy, Advisor-Economic Affairs, FICCI**

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The Year book is an excellent source of up-to-date information on various energy sectors like power, coal, petroleum, renewable and nuclear energy.

**Ashok Anand, DG, Petrotech**

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We appreciate your efforts and initiative on compilation of an integrated ready reckoner on the energy sector. We believe this would definitely be a useful guide for all the stakeholders of this sector.

**Akhil Mehrotra, Director, Gujarat Gas Co Ltd**

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Needless to mention, both the publications are quite useful from the energy sector players in general and those in Northern and Western region in particular. We shall make use of the information provided therein to the maximum extent possible.

**Markand Bhatt, Group CEO, Torrent Group**



# READERS RESPONSE TO THE IEF PERIODICALS FROM THE ARCHIVES

I have gone through the Energy Magazine and found it very informative and impressive as it disseminates very significant details about all the energy sectors including events.

**M A Pathan, Chairman, Tata Petrodyne Ltd**

We thankfully acknowledge the copy of latest edition of TOTAL ENERGY. The Year book contains useful information regarding all sector of energy as well as covers major issues of energy sector facing today.

**S C Natu, Member Secretary, Cogen India**

It gives me great honour and pleasure to acknowledge with thanks the receipt of the latest issue of TOTAL ENERGY, which contains most valuable updated information and views on the energy section and forum's activities. The issue is of great interest and highlights the major developments of the Forum.

**Ambassdor, Embassy of the Republic of the Sudan**

The Total Energy has been providing comprehensive information and updates on all the main verticals of energy sector i.e. oil & gas, power, coal, renewables and Nuclear updates. As Indian Oil is truly integrated energy company having downstream and operations, Wind & Solar power generation, upcoming nuclear power generation capabilities, we find the magazine as highly relevant to us.

**Subodh Kumar, GM, IOCL**

India Energy Year Book is indeed a valuable source of information on energy. Please accept my compliments for the initiative.

**R S Butola, MD, ONGC Videsh Ltd**

Received with thanks 13th Revised Edition of India Energy Year Book 2013 today. The book contains valuable data on the Power Sector.

**S Gunasekaran, Secretary, Tamil Nadu Electricity Regulatory Commission**

I am directed to inform that the Compendium titled "India Energy Year Book 2015-16" published by India Energy Forum has been received in this office and Hon'ble Chairman has appreciated the efforts of the Forum. I hope India Energy Forum will continue to bring out similar publications in future for the benefit of the electricity regulatory commissions and power industries. - Parmanand Singh, Secretary,

**Bihar Eletricity Regulaotry Commission.**

Thank you for your letter of 28 March 2016 enclosing a copy of the latest edition of India Energy Year Book 2015-16. The publication is a very useful one and will be made use of by us in the course of our functioning.

**Mr Arvind Varma, Secretary General, Indian Beverage Association**

INDIA  
**ENERGY**  
F O R U M

**India Energy Fourm**

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